ANNUAL ADMINISTRATION REPORT

FOREST DEPARTMENT

OF THE

MADRAS PRESIDENCY

FOR THE

TWELVE MONTHS ENDING 30TH JUNE 1916

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ANNUAL ADMINISTRATION REPORT OF THE FOREST DEPARTMENT

FOR THE

FOREST YEAR ENDING 30TH JUNE 1916.

CHAPTER I.—CONSTITUTION OF STATE FORESTS.

1. ALTERATION IN AREA.

Northern Circle.

The following statement shows the abstract of changes in Forest areas :—

Class.	Area on 1st July 1915.	Added during the year.	Excluded during the year.	Area on 30th June 1916.
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Reserved forests	4,616	2	13	4,605
Do. lands	499	..	7	492
Leased forests	2	..	..	2
Total ..	5,117	2	20	5,099

One square mile in *Vizagapatam* and one square mile in *Gōdāvari Upper* were finally constituted reserved forests. Ten square miles in *Ganjām* were disafforested and three square miles in *Kistna* were excluded owing to rectification of reserve boundary.

Two square miles by transfer to reserved forests, and one square mile, to rectify an error in the previous year's calculation were deducted from reserved lands. Five square miles in *Ganjām* were eliminated by the adoption of recomputed areas. The other changes were of minor importance.

Central Circle.

2. *Reserved forests.*—The chief feature of the year was the disafforestation of 15,343 acres the details for which are noted at foot of Form No. 65. In *Anantapur*, an area of 4,094 acres was transferred from *West Cuddapah* and *Chittoor* districts and 1,164 acres were transferred to *West Cuddapah.* In *Nellore*, owing to resurvey of kancha areas, there was an excess of 5,423 acres and a deficit of 4,401 acres in certain cases.

Reserved lands.—Two thousand eight hundred and eighty-eight acres consisting of enclosures and extensions were constituted reserved lands. Four thousand nine hundred and eighty-three acres were transferred to reserved forests. Full details have been noted at foot of Form No. 65.

The total area of reserved forests and reserved lands at the close of the year was 5,823 square miles against 5,843 square miles of the previous year.

Southern Circle.

3. *Reserved forests.*—The total area decreased from 4,353 to 4,347 square miles. One thousand three hundred and eighty-five acres were added by transfer from reserved lands, 3,376 acres transferred to the Public Works Department, 1,203 acres disafforested and 15 acres deducted on account of alteration of reserve boundaries.

Reserved lands.—One thousand seven hundred and thirty-four acres were notified reserved lands, 5,104 acres thrown out at Forest Settlement and 621 acres transferred to the Public Works Department.

Western Circle.

4. *Reserved forests.*—The alterations are :—Ten square miles were transferred from reserved lands and six square miles disafforested. The net area of the circle at the close of the year was 4,142 square miles.

Reserved lands.—About three square miles consisting of enclosures in and additions to the existing reserves were added and ten square miles were transferred to reserved forests. The area at the close of the year was 107 square miles, of which 96 are leased forests in the *Nilgiris* and *South Malabar* and five "toda-patta" lands in the former district.

2. Forest Settlement.

Northern Circle.

5. Thirteen blocks (499 square miles) remained unsettled at the commencement of the year, one block (less than ½ a square mile) was added during the year, and three blocks (2 square miles) were transferred to reserved forests leaving 11 blocks (497 square miles) pending at the end of the year. Of these 11 blocks eight were pending with the Board and three with District Forest officers.

Central Circle.

6. One block in *Anantapur* and one in *West Cuddapah* were finally settled during the year. Eight blocks are pending final disposal by Forest Settlement officer and six have been notified under section 4 and are undergoing settlement.

Southern Circle.

7. Settlement is complete except in North and South Salem and Trichinopoly. *North Salem.*—Of the four blocks comprised in the Udedurgam reserve, final reports for three have been forwarded to the Board and one is pending with the Forest Settlement Officer for submission of the final report since July 1915. The delay has not been explained.

South Salem.—The appeal filed in the Sessions Court by the claimants of the Aranha and Thirthagiri blocks against the decision of the Forest Settlement Officer was first posted for hearing to 29th September 1915 but was then adjourned by the Sessions Judge to 23rd October 1916. The settlement of the Jarugumalai block was transferred from the Revenue Divisional Officer to the Special Assistant Settlement Officer in Board's Proceedings, Forest Mis. No 157, dated 3rd March 1915. The latter only perambulated in November last and passed orders on the claims after a delay of over six months. The appeal expired on 8th June 1916 but the section 16 notification has not yet been submitted. Eleven blocks of about 31 square miles (Veppadi 5 square miles, Vedambiam 5 square miles, 3 bits in the upper Pachamalais 2 square miles, Manmalai 5 square miles, Perumamalai and Kollimalai east and west slopes 2 square miles, and Paithur northern and southern blocks 12 square miles) have since been proposed for reservation and section 4 notifications for 5 of the blocks have been submitted to the Board.

Trichinopoly.—Gundur and Ariyur shola blocks were brought under settlement in January 1914 and August 1914 respectively. The final settlement is reported to be pending joint inspection by the Revenue Divisional Officer and the District Forest Officer and the delay is explained as having been due to change of Revenue Divisional Officers.

Western Circle.

8. Four blocks in *South Canara*, six in *Kollegal*, three in *Central Coimbatore* and one block in each of the *Nilgiris* and *South Coimbatore* aggregating 10·53 square miles were finally settled during the year; two blocks (·74 sq. mile) in the *Nilgiris* were excluded from reservation. Four blocks (2·91 sq. miles) were brought under settlement. The balance under settlement was nineteen blocks (5·03 sq. miles), but the actual settlement of nine of these was completed. In the *Nilgiris*, the delay in the settlement of some of the blocks which are enclosures in reserved forests is reported to be due to the difficulty in identifying the actual boundaries of the fields, the survey stones of which were missing and in *North Coimbatore*, the settlement of two blocks was delayed by a Ranger who deferred making the valuation of tree growth on the lands.

3. Demarcation.

Northern Circle.

9. Four miles of external demarcation was completed in *Ganjām* at a cost of Rs. 88 and 679 miles were repaired at a cost of Rs. 3,851. Four thousand two hundred and sixty-eight miles were recleared by Forest subordinates free of cost. The average cost per mile of demarcation was Rs. 22 and of repairs Rs. 5–10–9 against Rs. 22–14–4 and As. 13–7 respectively in the previous year; the increase under repairs is due to higher rates paid for widening the lines in unhealthy and remote localities such as Chintapalle in *Vizagapatam* and Rampa in *Gōdāvari Lower* and to erection of larger number of new cairns.

Central Circle.

10. Fifteen and seven miles were newly demarcated in *Bellary* and *Anantapur* respectively at a cost of Rs. 418. Rupees 6,387 were spent in repairing 4,157 miles of existing boundaries already demarcated. The decrease in expenditure is due to financial stress.

One hundred and sixty-four miles of permanent demarcation with solid stone pillars surrounded by well-packed cairns of stones, and with a lockspit or a two-feet wide stone alignment between the cairns, were completed.

Southern Circle.

11. Final demarcation was carried out in Trichinopoly and Madura over a length of 13 and 57 miles respectively. Rectification of demarcation was carried out in North and South Vellore, South Arcot, North and South Salem and Madura. A great deal of work in this direction has still to be done more especially in the demarcation of enclosures in North Salem and on the Javadis in South Vellore. One hundred and twenty-four miles remained to be demarcated at the close of the year of which 121 miles are in Madura. Rupees 1,271 were spent from Political Funds in demarcating the Travancore boundary to a length of 23 miles in Madura and 31 miles in Tinnevelly.

Western Circle.

12. *New boundaries.*—Twelve miles in *North Malabar*, six in *Kollegal* and two in each of the *Nilgiris* and *North Coimbatore* were demarcated at a cost of Rs. 1,351. *Old boundaries.*—Four miles in *Mangalore North* were stone-lined and lockspitted; much more of this work remains to be done in both the *Mangalore* divisions. Progress is delayed by differences between the boundaries notified and those on the ground. Forty-seven miles of boundaries and lines in the teak plantations in *South Malabar* were verified and cleared for survey by the Survey of India. Fifty-four miles in the *Nilgiris* and 32 miles in *North Coimbatore* were demarcated substantially in accordance with the verification by the special staff. The special staff in the former district have verified the boundaries of 49 reserved forests in the Ootacamund taluk, of which 39 have been demarcated. Eight miles of the new boundary between the *Nilgiris* and *Coimbatore* were demarcated and about $5\frac{1}{4}$ miles roughly aligned. The progress on this work was interrupted by the absence of the officer in charge on leave and his subsequent transfer.

The length of lines reported to have been cleared or repaired free of cost by subordinates was 470 miles. In *South Canara*, the *Nilgiris* and *Kollegal* the subordinates continued to maintain the boundaries, but the results were not recorded and in *North Malabar* no such clearing was made.

4. Forest Surveys.

(*a*) *By Survey of India.*

Northern Circle.

13. No new work was undertaken during the year. It is reported that the Index map for *Kurnool South* has been sent to the Press and those for the remaining two divisions of *Kurnool* would soon follow. Special Divisional map for *Kurnool South* is reported to be in the Press and similar maps for the remaining districts to be in different stages of completion.

(*b*) *By Departmental Survey.*

During the year Rs. 8,260 were spent on forest surveys. Final maps for reserves have yet to be prepared in *Kistna* for 124 square miles, in *Kurnool East* for three square miles, in *Kurnool South* for 95 square miles and in *Kurnool West* for 280 square miles. The field work during the year consisted chiefly in the verification of boundaries, alignment of roads and fire lines and preparation of coupe, Working Plan and other maps.

(*a*) *By Survey of India.*

Central Circle

14. During the year the party finally surveyed on 2″ scale one reserve in *East Cuddapah*, two in *Chingleput* and four in *Chittoor* aggregating an area of 1·68, 20·72 and 6·94 square miles respectively. The party commenced work on 4″ scale in *Nellore* district in April 1916 in accordance with G.O. No. 479, Revenue, dated 1st March 1916, and the work is in progress.

(*b*) *By Departmental Survey.*

In *Bellary*, a special staff consisting of an Extra Assistant Conservator of Forests and two surveyors and four chainmen were employed for surveying the reserves of Adōni range for the purpose of preparing a reconnaissance report and stock maps and the report is under preparation and will shortly be completed.

Survey of coupes, verification or rectification of boundaries, alignment of roads and the preparation of coupe, working plan and fire maps were done by the departmental staff. It is a matter for regret that the orders issued in B.P. Forest No. 150, dated 19th August 1909, that coupes should be surveyed before sale were not always properly attended to by the District Forest officers. Their attention has been drawn to the fact and they have been requested to particularly see that these important instructions are carefully attended to in future.

(*c*) *Maps.*

The reference maps referred to in section 80 of the Forest Code were maintained and posted in all districts.

Southern Circle.

(*a*) *By the Survey of India Party.*

15. No surveys were undertaken during the year.

(*b*) *By the Madras Survey Party.*

Revision survey operations were conducted by the Madras Survey party in Madura, and all the Forest discrepancy sketches received during the year have been returned verified.

(*c*) *By Departmental Survey.*

All coupes were surveyed by ordinary staff except in North and South Salem where surveyors were employed and in Madura where similar work was done by a supervisor.

A variety of survey works such as surveying forests for preparation of original and revised working plans, verification of reserve boundaries and the surveying and aligning of roads was done by the existing staff and departmental surveyors.

(*d*) *Maps.*

Reference maps referred to in section 80 *of the Forest Code.*—These are reported to have been maintained in all districts.

Western Circle.

(*a*) *By the Survey of India Party.*

16. The Survey of India did no work during the year.

(*b*) *Other Surveys.*

All fuel coupes, certain areas under cultivation in reserved forests in *North Malabar* and *Kollegal*, the verification of boundaries in the *Nilgiris*, the trace of a road in *Kollegal* and the alignment of a bridlepath in *South Coimbatore* were surveyed departmentally. A surveyor deputed by the Madras Survey Department rectified the errors in the survey of five of the estates on the Anamalais.

(*c*) *Maps.*

Reference maps under section 80 *of the Madras Forest Code.*—These maps were maintained and posted except the Range reference maps in *Kollegal* and *South Coimbatore.*

Special District Reference maps.—The Forest Map Officer completed the preparation of the maps of all divisions and his services were terminated on 31st March 1916. Some of the maps are pending publication in the Forest Map Office at Dehra Dun. According to the progress statement furnished by that office, the map of the *Nilgiris* was published and the maps of *North* and *South Malabar* were in the press during the year.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

1. Regulation of Management.

(a) Preparation and Control of Regular Working Plans.

17. *Preparation.*—On receipt of Board's orders communicating the remarks of the Government of India on the slow progress in the preparation of the Working Plans in this Presidency the attention of the District Forest officers of the Circle was drawn in Direction office C. No. 931 of 1916, dated 11th May 1916, to the necessity of completing the pending plans and of taking up those ear-marked for preparation. They were also requested to report which of the incomplete or contemplated Working Plans may be expected to be finished before 30th June 1917. A précis of their replies as modified by what was subsequently reported in their Annual Administration Reports is given below :— *Northern Circle.*

Vizagapatam.—Besides Working Plans that are being drawn up by Mr. Stracey under the direct supervision of the Conservator, fuel Working Plans for Arlova series, a revised Working Plan for Narasapatam fuel working Circle in Sarvasidhi range, fuel Working Plans for (i) Bodlapad, (ii) Buchendri, (iii) Kothapeta, (iv) Bommica, (v) Kothavalasa, (vi) Rassulpeta, (vii) Avalangi, and (viii) Ichapuram and the submission of a Working Plan for the systematic working of bamboos in Palaconda range are expected, the preliminary information therefor having been collected.

Gōdāvari Upper.—The preliminary tentative Working Plan for the Marrigudem range will be ready shortly.

Gōdāvari Lower.—A revised Working Plan for Coringa reserve has been submitted to the Board, the preliminary Working Plans for Peddapur and Gokavaram ranges returned by the Board have been resubmitted after revision, and the preliminary Working Plans for Polavaram range and certain reserves of Rajahmundry range have been taken up.

Kistna.—The revision of the Working Plan for Upputeru blocks (i) and (ii) will be ready shortly.

Kurnool East.—A preliminary Working Plan for the Gudem range has been sanctioned during the year; that for Cumbum range has been submitted to the Collector ; and the other plans which are to be drawn up on the lines of the above two will be taken up when the former are sanctioned ; plans for Markapur and Dornal ranges were also promised by the end of June 1917.

Kurnool South.—The Working Plan for the Gundlakamma range and the revision of the plan for Owk range could not be completed for want of an assistant. Sirvel, Chelama and Giddalore range Working Plans will be taken up after the above two are completed.

Kurnool West.—The reserves were classified but recently and several Working Plans have to be made or revised ; a Working Plan for Alamur tope reserve was drawn up by the Extra Assistant Conservator and it is under scrutiny ; as this reserve has been placed under class (iii) by the Board and is likely to be sold the plan will probably be not required.

In *Ganjām* an interim Working Plan for seven Goomsur ranges has been sanctioned ; as this is tentative, the preparation of a Working Plan based on the present administrative and sylvicultural conditions is being taken on hand.

18. *Control.*—The prescriptions of the sanctioned Working Plans have been generally adhered to except in the following cases.

Ganjām.—The work of numbering, measuring and listing wind-fallen trees was not undertaken as the order reached the Range officer late ; a fuel and a bamboo coupe could not be sold for want of satisfactory bids, another fuel and another bamboo coupe were opened to meet an unexpected demand ; estimation for a cart-track and initiation of graded coupe lines could not be completed for want of time on the District Forest officer's part, the diversion and building of a bridge proposed to a road were given up as they were found disadvantageous ; the construction of a well was given up as the Local Fund Department contemplated the sinking of one near the forest bungalow ; some other works were postponed for want of funds.

Gōdāvari Upper.—The preliminary tentative Working Plan for the Bhadrachalam range sanctioned in 1914–15 was not put in force during the year as further proposals are being made for working the forests in Bhadrachalam taluk; a preliminary plan for the Marrigudem range has been prepared and will be submitted shortly.

Gōdāvari Lower.—The prescriptions of the Working Plan for Kandikuppa Casuarina plantation were not followed as the area has to be disafforested after the standing growth is disposed of, pending sanction of a revised Working Plan for the Coringa reserve a tentative plan of operations based on the prescriptions to be observed is being followed with Board's approval.

Kistna.—The Working Plan sanctioned for the Mangrove forests of Divi taluk for ten years is being continued to compare the results achieved under the ten years' rotation in Upputeru and five years' rotation in Divi. One coupe for timber and another for fuel were not worked for want of demand.

Kurnool South.—The Working Plan for Owk palmyra extension sanctioned in 1911 has been cancelled as the area is to be assigned to grazing.

Kurnool West.—In the Nallamalai Terai the original system of improvement fellings in timber coupes was reverted to.

Central Circle.

19. *Preparation.*—In *East Cuddapah*, the following plans were sanctioned by the Board during the year:—

(1) Red sanders timber forests in Palakondas, Sidhout range in B.P. Forest No. 3, dated 3rd January 1916; (2) Kodur Extension fuel working circle in Chitvel range in B.P. Forest No. 30, dated 21st February 1916; (3) Seshachellam fuel working circle in Kodur range in B.P. Forest No. 67, dated 26th April 1916; and (4) Kalasapad fuel working circle in Porumamilla range in B.P. Forest Mis. No. 628, dated 5th October 1915.

In *West Cuddapah*, the working of fuel and bamboo coupes in Lankamalais, in *Nellore*, working schemes for Ayyavaripalli reserve and Atmakur working circle and revised working plan for Guindy Park in *Chingleput* were tentatively approved by the Conservator.

The following working plans are under preparation:—

In *Bellary*, a simple working plan for the forests of the Harpanahalli range and a reconnaissance report for the Adōni range forests by the Extra Assistant Conservator in accordance with Board's orders.

During the year, sanction has been received in G.O. No. 1389 (Confdl.), dated 17th June 1916, for preparation of working plan for Sandur leased forests. A Working Plan officer has been appointed for the purpose after the close of the year. In *Guntūr*, a preliminary Working Plan for Tadepalli and a revised Working Plan for Guntūr Babul working circle provisions of which ceased to be in force in 1913–14. In *West Cuddapah*, a scheme for Idupulapaya palmyra plantation and a Working Plan for working fuel and bamboo areas in Nallamalais. In *Nellore*, a working scheme for *Anogeissus latifolia* area in Chinna Annalur and for a scheme in the Kanigiri range. In *Chingleput*, revised plans for all working circles are under preparation in accordance with B.P. Forest Mis. No. 785, dated 11th December 1915. In *East Cuddapah*, the Working Plans of Rajampet fuel working circle and Palakonda Bullmen fuel working circle were cancelled as the areas were included in the subsequent working plans sanctioned in B.P. No. 16, dated 16th February 1915, and No. 3, dated 3rd January 1916.

There are several plans requiring revision and the matter is under consideration and correspondence.

20. *Control.*—In *Anantapur*, Anantapur, Upparapalli and Siripi reserves classed as V were thrown open to grazing. In *Guntūr*, the provisions for the Guntūr Babul working circle ceased to be in force in 1913–14. In *West Cuddapah*, three coupes were not worked as the areas were too large to be worked in a year. In *East Cuddapah*, *Chingleput* and *Chittoor* several coupes were not worked for want of demand. The Lankamalai Bullmen fuel working circle of *East Cuddapah* sanctioned in B.P. Forest No. 150, dated 1st August 1908, which was suspended for three years from 1912–13 will have to be abandoned in view of the timber improvement

Working Plan to be prepared for the Lankamalais. As observed in last year's report there is working plan work to be done in the circle sufficient to give employment not only to one but to two or three working plan sections for many years to come, but it is impossible to make any substantial progress under present circumstances on account of serious insufficiency of forest staff.

21. *Preparation.*—The Javadi sandalwood working plan and the supplemental working plan for the Chitteri forests referred to in the previous year's report were sanctioned during the year. *Southern Circle.*

A working plan for the Pālār river side plantations in North Arcot was prepared by the District Forest Officer and submitted for sanction.

The working plan for the fuel areas in *Madura district* was prepared by the Special Working Plans officer and is before the Board. This is a most important plan.

North Salem.—The Special Working Plans officer also completed the Hosur sandalwood working plan and submitted it after the close of the year.

South Salem.—Revision of the sanctioned working plans for Shevaroys East and Kouramalai working circles was taken up during the year but not completed.

Trichinopoly.—A draft working plan for the Cassan forests of Udayarpalaiyam is said to have been prepared by the Range officer, but this work is useless as the forests are likely to be given up.

No reconnaissance report was submitted or this useless work might have been avoided.

Tinnevelly.—A great deal of work is required in this district as nearly all the plans require revision and several new plans have to be prepared.

On the whole fair progress was made in this direction but the work that still remains to be done is overwhelming.

22. *Control.*—As long as the working plans themselves are so unsuitable there can be little effective control, but undoubtedly control has improved and the true position of working is gradually coming to light.

North Vellore.—Out of 47 current coupes and 312 arrear coupes, only 16 and 13 respectively were leased out. This is a very unsatisfactory state of affairs in a district so favourably situated in respect of markets.

South Vellore.—The control over sandal work is at last effective but the regeneration operations were imperfectly carried out.

The fuel operations are still unsatisfactory as 29 current and 156 arrear coupes remained unworked.

South Arcot.—This district is at present in a state of flux and in consequence existing working plans are completely upset.

North Salem.—In this district all the fuel coupes except those at the foot of the Shevaroys are considerably in arrears. Coupes are too large and much inconvenience has been caused by attempts to mark standards in coupes where very few good standards are available. These mistakes have now been remedied.

South Salem.—Out of 31 fuel working circles, work was actually carried out in only 25 owing to the existence of over 100 square miles of unreserved forest in the Attur range which is still worked under the permit system. It is evident that it is useless trying to open fuel coupes in this range.

Trichinopoly.—A recent report has shown that for the past 15 and in some cases 20 years there has been no control over the fuel fellings in the important Vaiyampatti range. Coupes have been most irregularly worked, with areas totally different to those prescribed and in the wrong place.

In Nāmakkal and Musiri ranges the working plans have been so badly prepared that they were doomed to failure and no serious attempt has ever been made to carry them out.

Madura.—The working of coupes in Palamedu and Kanavoipatti ranges is generally in arrears chiefly for want of means of transport. Nineteen arrear coupes aggregating 835·95 acres were sold during the year.

Tinnevelly.—In this district the simple working-plans have always proved a success, but they are now coming to a close and experience shows that the rotation of 20 years is too short. For some years work will have to be carried on in areas outside the present working circles and in Kuttalam especially the District Forest Officer has done good work in showing where such working is possible.

Western Circle.

23. *Preparation.*—No new working-plans were either prepared or sanctioned. Mr. C. C. Wilson, the Special Working Plans Officer, with his staff was transferred from the Southern Circle just at the close of the year. He has since been engaged in the preparation of a working plan for the Tekadi leased forests.

Revision.—Mr. Bourne with a special staff is engaged in collecting data and statistics for the preparation of the final working plan for the teak plantations in *South Malabar.* The revised working plans for the forests of Mettupalaiyam range and for Tadagam reserved forest in *Central Coimbatore* were pending sanction. The revision of the plan for the forest of Erode range was not taken up pending settlement of the question of handing over some more forests to the management of the forest panchayats.

24. *Control.*—The provisions of the existing working plans were adhered to with the following important exceptions :—*South Canara.*—Kadike, Manaje, Chinkramale and Durgamale fuel and Karadka bamboo coupes were not exploited for want of demand ; so also Sabladi fuel coupe on account of poor growth. The felling in Uppinangadi timber, Narimogar fuel and in some of the Coondapoor range fuel coupes was in arrears partly for want of sufficient labour and partly owing to slack demand, which is attributed to the large quantity of fuel brought to the market from unreserved and kumaki lands and to the effect of the war on tile factories. *North Malabar.*—The work in Begur and Chedleth coupes was behindhand. Coupe XIX of Begur was not completed as the trees in three of the sub-coupes had to be re-marked and felled ; sub-coupes C to E of Chedleth coupe II were not felled for the same reason ; the re-marked trees in sub-coupes A and B were sold, standing late in the year owing to difficulty in procuring a contractor. *South Malabar.*—The prescribed rotation for thinning teak plantations having been completed last year, the plantations laid down for the first year of that rotation were thinned. The *Nilgiris—Plantations.*—Compartment 12 of Acacia working circle prescribed for 1914–15 was felled during the year ; the felling in compartment 15 of the same working circle and the thinning of Frenela and cypress in the Coonoor Eucalyptus working circle were postponed for want of labour. Thinning in Newman plantation was not carried out as the material obtained from the clearing of compartment lines was sufficient for the manufacture of charcoal. *Kollegal.*—The provisions of the working plans for the sandalwood areas in Bailur and Madeswaranmalai reserves were not carried out as the first rotation was over in 1910–11 and the working according to the same prescriptions could not be followed owing to the havoc caused by spike disease. Spiked areas were felled. The working plans for Talamalai range in *North Coimbatore*, for Bolampatti (except Chinnar working circle) in *Central Coimbatore* and for Talinji working circle in *South Coimbatore* remained unworkable. The prescriptions of the working plan for the forests of Erode range were not followed so far as the areas handed over to the panchayat mangement were concerned. *South Coimbatore.*—Felling timber in the Varigali valley was postponed for want of an export road and was stopped in Punachi working circle in the effort to find a contractor for purchasing standing timber which was not successful. The size of coupes in the fuel working circles was not adhered to owing to the impossibility of working the areas prescribed in the plans and the prescriptions regarding weeding, etc., were not carried out.

25. *Preliminary Working Plans Reports—South Canara.*—A working scheme for the extraction of overmature timber from some of the forests in Uppinangadi and Puttur ranges exploitable by the Kumaradhari, Gundia and Yenekal rivers was prepared under the Conservator's instructions by Mr. Hart. These areas are included in the working plans already sanctioned. Three fuel and one bamboo coupes in *Kollegal*, nine fuel, ten bamboo and three sandalwood coupes in *North Coimbatore*, one fuel and three bamboo coupes in *Central Coimbatore* and two fuel coupes in *South Coimbatore* were as usual worked systematically. It is time that formal schemes were prepared.

(*b*) *Annual Plan of Operations.*

26. The sanctioned plans were generally followed, except as detailed under working plans above and in the following cases :— *Northern Circle.*

Ganjām.—Kamala powder and Bassia latifolia seeds were not collected for lack of demand ; a fuel coupe was not worked as the area was intended to be made over for panchayat management ; the construction of a bridle-path was not taken up as it was found unnecessary ; a well in a Range office compound was not sunk for want of funds ; the collection and burning of unsaleable wood on some fire lines were not undertaken as the condition of the lines was sufficiently good.

Vizagapatam.—The construction of a rest-house at Kristnapuram was postponed for want of funds.

Gōdāvari Lower.—Some urgent works were given preference to ordinary works sanctioned in the plan.

Kistna.—Repairs to five roads, clearing some coupe and boundary lines, rectification of four reserve boundary lines, construction of two dingies (boats) and three subordinates' sheds, surveying and cutting lines in three Mangrove forests, fencing with prickly-pear a small area and sowing babul seed thereon in Bandar Fort extension reserve ; digging inner channels in a coupe had to be given up owing to financial stringency ; certain cultural operations had to be given up for want of proper seeds ; repair of a well was not undertaken as it was full owing to heavy rains and the widening and deepening of a channel which was found unnecessary was given up.

Kurnool East.—Certain cart-tracks and buildings were not taken up for want of funds.

Kurnool South.—Certain roads and buildings had to be postponed to effect economies during the war.

Kurnool West.—The projects for the Pangidi-Sudam-Kuruva road and the road two miles up the Penagonda valley were abandoned.

27. The sanctioned plans of operation were not generally adhered to owing to financial stress and to transfer of reserves to panchayat management. The chief deviations are : In *Bellary*, demarcation and stone wall works had to be postponed. In *Guntūr*, only half the number of coupes proposed were sold for want of demand. In *West Cuddapah*, Block I of Palakonda bamboo working circle was worked instead of block III ; road and building works were postponed for want of funds. In *East Cuddapah*, two road works not provided for in the plan had to be taken up on account of their urgency. In *Nellore*, a building work was not undertaken owing to amalgamation of a range and two well works for want of funds. In *Chingleput*, two branch roads and subordinates' quarters and three wells were postponed for want of funds. In *Chittoor*, demarcation and construction of building works were stopped owing to financial stress. *Central Circle.*

28. Besides the deviations mentioned in paragraph 22 supra, the other important deviations were :—*North Vellore*—Repairs to Yedayampatti-Kanavur road and Chargal-Naickeneri road and bunding of streams in Paravamalai and Erranayakaneri were not carried out for want of funds and timely estimates. *South Vellore*—Construction of rest-houses at Pudur and Reddiyur and repairs to Nadanur rest-house were not taken up owing to the paucity of subordinates and to the difficulty of getting contractors. The sinking of wells at Mandaparai, Pudur and Kuttathur also had to be postponed. *North Salem*—A considerable amount of work outside the working plan had to be done in connexion with "spike" disease. *South Salem*—The construction of five roads and two rest-houses was postponed for want of funds. *Trichinopoly*—The construction of subordinates' quarters at Puliansholai and the rest-house and out-houses and servants' quarters at Nadukombai was postponed for want of funds. *Madura*—The construction of almost all new roads, bridle paths and buildings was postponed for want of funds. The extension of the pine plantations on the Upper Palnis has been stopped. *Southern Circle.*

29. Besides the deviations mentioned in paragraph 24, the only important deviations were :—*South Canara*—The elephant-capturing operations were stopped owing to an outbreak of anthrax. One cart-track and two roads were not constructed as they were unnecessary. Charmadi-Shiradi road, the Ranger's quarters at Coondapoor *Western Circle.*

and the Deputy Rangers' quarters at Kollamuguru and Sitanadi were postponed for want of funds. The demarcation of forests was not undertaken pending verification of boundaries. *North Malabar*—Some of the roads were not widened and a well at Kuppadi was not sunk, on further consideration they appeared to be unnecessary. Deputy Ranger's quarters at Muttanga and guards' quarters at Pavagaddai and Trichileri were not constructed for want of funds. Edathorai reserve was not demarcated as the establishment was engaged on other works. *South Malabar*—A drag road in New Amarampalam reserve, Neelikal bridlepath, two guards' quarters and the demarcation of the Silent Valley reserve were deferred for want of funds. The construction of a standing camp for the Forest College was abandoned. The *Nilgiris*—Two bridlepaths were not constructed as the preparation of estimates was delayed. Sandalwood block near Kunjapanai was not thinned, there being "no demand for the materials to be extracted" (not a very sound reason). *Kollegal*—Elephant-capturing operations were not undertaken, a suitable locality not having been found. Lingamankarai road was not completed pending settlement of the question of acquiring patta lands. Hanur-Cowdalli road was cut out as unnecessary. New range offices at Hanur, Bailur and Ponnachi and subordinates' quarters at Mattipuram were not constructed pending orders about the revision of establishments. Stone walling in Chickailur reserve was not carried out as the demarcation of the same was not completed. *North Coimbatore*—Three small timber and one fuel coupes were not exploited for want of demand. The extension of the Hassanur-Hulikere road, tracing and estimating for two bridlepaths, a well at Kempanayakanpalaiyam and the demarcation of three enclosures in Gutialattur reserve were not taken up for want of establishment and funds. *Central Coimbatore*—Improvement fellings in Tadagam and Mettupalaiyam forests were not carried out as the working plans were not sanctioned. Some of the fuel and bamboo coupes prescribed for the year were not exploited either for want of demand or the felling in previous coupes was in arrears. Two bridlepaths in the Attapadi range were not constructed owing to the incompetency of a Ranger; subordinates' lines at Kalladikode and guard's shed at Tudiki were given up in favour of the incomplete buildings in the Attapadi valley. The site for one building sanctioned in 1914 has not yet been fixed by the District Forest Officer. The inspection shed at Shottaiyur was deferred as the Ranger could not supervise its construction and the Range Clerks' quarters at Iruttupallam for want of funds. *South Coimbatore*—Felling in coupe XXIII of the Tekadi leased forests was stopped owing to the large stock of the timber still awaiting transport from the forests. Timber was not taken beyond Pollachi which is now the rail head and where there is a large depot. The Varigali valley road was not proceeded with pending further investigation. The Mount Stuart ghat road was not commenced as the estimates were not sanctioned. The Tekadi tram line was not begun as investigation was incomplete. The proposal to construct a standing camp for the Forest College was abandoned. Some of the quarters for subordinates were not constructed for want of funds, others were given up in favour of more urgent works and some were found unnecessary. Besides finishing some of the incomplete works of last year, the chief works that were carried out *though not provided for in the plan of operations* were:—*South Malabar*—Construction of a bridlepath in the Silent Valley and of a kitchen to the rest-house at Poochipara. *Central Coimbatore*—The construction of a rest-house at Kunjapanai and clearing of lantana under regular schemes. *South Coimbatore*—Strengthening bridges in the Coimbatore-Pollachi and Pollachi-Sethumadai roads for a road train to pass over and the construction of a bridge over the Aliar river, eradication of lantana and prickly-pear in Punachi and Udumalpet ranges, respectively, the construction of an elephant kraal at Lower Punachi and clearing of a portion of the area in the township on the Anamalais.

2. Communications and Buildings.

Northern Circle.

30. The total expenditure on new works amounted to Rs. 28,611 and on repairs Rs. 33,038 as compared with Rs. 27,998 and Rs. 38,647 respectively in the previous year.

(*a*) *Roads and Bridges.*

The important works of a permanent nature executed during the year were:—*Ganjām*—The Osorobondho-Pondakhol boundary road and the Tarsingi-Kukuluba road were completed. *Kistna*—The Yerrakuruva Hill road was partly completed.

Kurnool East—A ghat road from Chintala to Tummalabailu, a ghat bridlepath from Devalude to Telugurayanicheruvu, a rough cart-track from Gudemcherla to Landapaya, a ghat cart-track over Lingamayyakuruva, a bridlepath over Dandakuruva and a birdlepath from Benjamin's view to district boundary. *Kurnool West*—Fifty miles of cart-tracks along existing lines, a cart-track from Munimaduguleru to Pecheruvu six miles long, and a road trace seven miles for the proposed Rudracode-Nallakalva road.

31. The outlay on communications and buildings is compared below :— *Central Circle.*

	1914–15.	1915–16.
	RS.	RS.
Roads and bridges	15,670	13,181
Buildings	33,510	22,461
Other works	2,675	866

The decrease in expenditure under all heads is due to the postponement of works on account of financial stress.

(*a*) *Roads and Bridges.*

The chief works of the year are —

In *Bellary*, repairs to the bridlepaths in Sandur leased forests. In *Anantapur*, repairs to Bukkapatnam-Siddarampuram and Bukkapatnam-Amagondapaliem roads were completed. In *West Cuddapah*, repairs to Korthimadugu road were completed while a new road from Neelapuram to Dasaripalle was in progress. In *East Cuddapah*, the construction of bridlepaths from Thummalabylu to Kodur range boundary, and Kondur to Harlabylu and from Rollabodu to Jothi and the conversion of Kangamadugu bridlepath into a cart-track were completed whilst the conversion of Vathalur-Thummalabylu track into a road and its extension to Rajampet Railway station as also the construction of a road from Balapalli to Kangamadugu and repairs to Mogalipenta-Balapalli road were in progress. In *Nellore*, progress was made in the construction of a bridlepath along the foot of the Veligondas in Rapur, Udayagiri and Kanigiri ranges and the road from Udayagiri to Bandeganipalli and that from Venkatapuram to Boggutla valley were nearing completion. In *Chingleput*, Allikuli-Ramanjeri road was extended to a distance of 40 chains. In *Chittoor*, the cart-track from Mamandur to Puliutla was completed.

Tramways.—In *Nellore*, the laying of tram lines in connection with the transport of fuel was carried out as usual. At Sriharikota, 1,518 tons of fuel were trammed against 609 tons in the previous year. In the coast casuarina plantation of Nellore range 927 tons of fuel were transported. The tram lines and trucks which are the property of Government are lent to fuel contractors on certain conditions for the removal of their stock.

(*a*) *Roads and Bridges.*

32. The total expenditure on new works amounted to Rs. 5,371 and on repairs to Rs. 14,997 as compared with Rs. 6,233 and Rs. 23,680 in the previous year. This reduction in expenditure was purposely effected. In *South Vellore* 1½ miles of road from Komattiyur to Patrakad and about 2½ miles of inspection path around the Kottur specially protected block were constructed. *Southern Circle.*

A substantial culvert on the Kambugudi Ghat road was also built at its 9th mile. But by far the most important work was done by the Special Forest Engineer who completed 14 miles of alignment for the Alangayam-Komattiyur road and prepared an estimate of Rs. 1,11,400 for construction. The alignment of the Nadanur-Amerdi road was commenced. *South Arcot*—A bridlepath of 4 miles in length from Thuthipatti to Turinjikadu was constructed at a cost of Rs. 293. *North Salem*—The chief work was the repair of 98 miles of road at a cost of Rs. 1,502. *South Salem*—The chief works were 5 miles of road from Panamarathupatti to Malayalapatti and 2½ miles of the Chinnakuppam-Karkanpatti road. Fifty one miles of roads and bridlepaths were repaired at a cost of Rs. 952. *Trichinopoly*—One hundred and eight miles of roads and bridlepaths were repaired at a cost of Rs. 2,739. *Madura*—One hundred and six miles of existing roads were maintained at a cost of Rs. 5,488. In addition to these, 17 Local Fund roads were maintained from funds provided by the District and Taluk boards. In *Tinnevelly* no new works were carried out.

Western Circle.

33. The expenditure on new works amounted to Rs. 17,175 and on repairs to Rs. 25,675 as compared with Rs. 25,155 and Rs. 22,148, respectively, in the previous year. *Important new works of the year.—South Canara*—The construction of Kolchar bridlepath. *North Malabar*—The continuation of Brahmagiri-Ampalaparai bridlepath for $5\frac{1}{4}$ miles and construction of bridges on the Kottiyur road. *South Malabar*—The construction of $10\frac{1}{2}$ miles of bridlepaths and 4 miles of cart roads. The *Nilgiris*—The completion of the Mudumalai-Doddakatti bridlepath, the continuation of the Mudumalai-Torapalli road and the commencement of roads in Bleakhouse and Coonoor peak reserved forests. *North Coimbatore*—The completion of four miles of ghat roads at a cost of Rs. 4,479 and *South Coimbatore*—The construction of Attakatti-Aliar road.

Tramways.—An extension of 14 furlongs to the tramline in the Tekadi leased forests was completed. The tramming was done mostly by Government bullocks. The working of the year showed a net profit of Rs. 1,441 against Rs. 2,416 in the previous year. The outturn of work during the year decreased from 4,328 to 3,691 ton-miles and the working charges rose from Rs. 1–9–9 to Rs. 1–13–7 per ton-mile; the increased rate was due to the purchase of fresh materials and to the stoppage of tramming work for some time owing to an outbreak of anthrax.

The work of the Temporary Forest Engineer.—The Engineer and his staff were under the control of the Public Works Department until the end of March 1916; since then the control was vested in the Forest Department. The work of the Engineer Mr. A. J. Bright was found unsatisfactory and his services were terminated after the close of the year. He revised the estimates for the new Mount Stuart ghat road and the estimates were pending sanction. He was also engaged in investigating a trace for a tramline in the Tekadi leased forests but made no substantial progress.

(*b*) *Buildings.*

Northern Circle.

34. *Ganjām.*—The construction of subordinate's sheds at Purnapani, Hattiguda, Kullada and Kesarapalli; huts for Foresters and Forest guards at Jogudi, Deputy Ranger's quarters at Chahali and a wooden rest-house at Osorobondho. *Gōdāvari Lower*—Part construction of rest-house at Veerabhadrapuram, completion of range quarters at Jangareddigudem and combined quarters at Urrinka and two sheds at Jangareddigudem for subordinates. *Kistna*—Re-construction of the stables attached to Kondapalle bungalow. *Kurnool East*—Construction of inspection houses at Garapenta and Burugundala and conversion of the depot buildings at Ganjivaripalli and the village chavadi at Pullalacheruvu into an inspection house and Deputy Ranger's quarters respectively. *Kurnool South*—Completion of the quarters for Deputy Rangers at Isukagundam, construction of a patrol rest-shed at Medimakulapenta, part construction of sheds at Utla and Mamidimanichelama, and the starting of the construction of rest-houses at Aleabad and Isukagundam. *Kurnool West*—The construction of two sheds for patrols at Chakralamadugu and Hatikeswaram and of a compound wall for the Ranger's quarters at Ernipad.

Central Circle.

35. In *Bellary*, the repairs to Glenview bungalow were completed. In *Anantapur*, the stable and kitchen attached to the Madakasira Range Officer's quarters, the kitchen attached to the forest bungalow at Kurli and the compound wall round the bungalow at Cherlopalli and repairs to forest bungalow and the range offices at Tadpatri and Kalyandrug were completed while the repairs to forest guard's shed at Guttūr, forest bungalows at Togarakunta and Rallahalli were in progress. In *Guntūr*, only repair works were done. In *West Cuddapah*, the construction of combined Range office and quarters at Onipenta was in progress. In *East Cuddapah*, Forest Range office at Kodur, subordinates' quarters at Rollabodu, Gollapalli, Bhakarapet and Kodivengammabhavi were completed while the construction of a Range office and quarters at Porumamilla and rest-houses at Mallapalli and Joti and subordinates' quarters at Papanasanam were in progress. In *Nellore*, the construction of Ranger's and range clerk's quarters at Dachur and rest-house with out-houses at Boggutla valley were completed while the construction of a rest-house at Vedullacheruvu and the compound wall around the range buildings at Dachur were in progress. In *Chingleput*, the construction of a rest-house with out-houses at Allikuli was completed. In *Chittoor*, the reconstruction of out-houses at Mamandur and repairs to several bungalows were completed.

36. During the year the total expenditure on new buildings and on repairs amounted to Rs. 23,075 and Rs. 15,005 respectively against Rs. 32,477 and Rs. 11,100 in the previous year. The new works were:—*North Vellore.*—The construction of subordinates' quarters at Kuppam, Chargal and Kannikulam. *South Vellore.*—Construction of a sandalwood chipping shed at Vellore, and the completion of the rest-house at Patrakad. The construction of a range office at Tiruppattur neared completion. A range office at Santhavasal and a rest-house at Kuttathur were begun. *South Arcot.*—Completion of the rest-house and stable at Pavanjipattu. *North Salem.*—Very little progress was made and the ranger's quarters at Kadayampatti are not yet complete. *South Salem.*—Completion of range offices at Attur and Harur. The rest-house at Cauvery peak and subordinates' quarters at Achankuttapatty were also completed. *Trichinopoly.*—Part construction of subordinates' quarters at Puliansholai. *Madura.*—Completion of Vannathiparai and Marian Sholai rest-houses. Subordinates' lines at Guruvanuthu were also completed. *Tinnevelly.*—Completion of subordinates' quarters at Puliangudi, Kodamadi and Pechiammankoil and part construction of quarters at Nambiar. *Southern Circle.*

37. The amount spent under this head was Rs. 44,795 against Rs. 41,466 in the previous year; of the former a sum of Rs. 32,899 was spent on new works and the balance on repairs. Rupees 30,799 and Rs. 10,667 respectively are the previous year's figures. The following were the principal items of new works:—*Rest-houses.*—One each in *North* and *Central Coimbatore* and two in *South Canara* were completed, one in *South Canara* and two in *Central Coimbatore* commenced and two in *North Coimbatore* in progress. The serambi at Teppakadu in the *Nilgiris* was dismantled and set up at Kargudi. The range office at Kanoth in *North Malabar* was commenced. *Range quarters, etc.*—One in *South Canara* was commenced and one each in *North* and *South Malabar* were in progress. The quarters for the Assistant Veterinary Inspector in *South Coimbatore* were completed. Deputy Ranger's quarters at Hoigundi in *Mangalore North* were constructed. *Subordinates' lines.*—One set each in *South Malabar* and *Kollegal* were constructed. Two in *North Coimbatore* and one in *South Coimbatore* were completed. One in the *Nilgiris* was commenced and two in *North Coimbatore* were in progress. *Other buildings.*—One inspection shed in *Mangalore North* was commenced. Construction of kitchen to Poochiparai bungalow in *South Malabar* and of stables and out-houses at Kargudi in the *Nilgiris*. *Western Circle.*

(*c*) *Miscellaneous Works.*

38. The chief works carried out were the repairs of tanks, sinking of new and repairs of old wells, clearing of springs and digging and widening channels. Bunding of various streams in the Nallamalais of *Kurnool West* was also undertaken. *Northern Circle.*

39. The most important works were the repair or deepening and digging of wells and improvement of water-sources in the grazing blocks. Seven new wells were sunk and 16 old wells repaired at a cost of Rs. 866. Rupees 816 were spent in improvement of water-supply in *Nellore* district. During the year sanction was accorded to the District Forest Officer, *Guntūr*, for the purchase of an Abyssinian tube well for use in the coast forests of the Repalle taluk. *Central Circle.*

40. Five new wells were sunk and 31 old wells repaired or deepened. *Southern Circle.*

41. The total expenditure incurred was Rs. 4,464 against Rs. 8,181 in the previous year. The decrease was due to the stoppage of the river training works in *North Malabar* as the results of the previous expenditure were not satisfactory and to a large expenditure in the previous year in *Kollegal* and *North Coimbatore* on sinking wells and repairs to tanks. The chief works carried out during the year were sinking three wells in *South Canara* of which one was completed, two in *Kollegal* of which one was abandoned and six in *North Coimbatore* of which five were in progress, improvement of the floating channel from Nilambur to Karimpoya bridge in *South Malabar* and fencing the buildings at Kargudi in the *Nilgiris*. *Western Circle.*

Telephone.—The telephone service in *South Coimbatore* is reported to be working satisfactorily though there were occasional interruptions, these were not so frequent as in the previous year.

3. Protection of Forests.

(a) General Protection.

Northern Circle.

42. The following statement shows the number and classification of forest offences brought to light during the year :—

Class.	Injury to forests by fire.		Unauthorised felling or appropriation of wood and minor forest produce.		Grazing without permission or in forest in which grazing is prohibited.		Other offences.		Total.	
	1914-15.	1915-16.	1914-15.	1915-16.	1914-15	1915-16.	1914-15.	1915-16.	1914-15.	1915-16.
Cases taken into court ..	8	10	462	471	194	148	63	52	727	681
Cases compounded ..	5	10	1,812	1,977	706	612	132	132	2,655	2,731
Cases undetected ..	289	216	183	206	34	21	3	..	509	443
Total ..	302	236	2,457	2,654	934	781	198	184	3,891	3,855

There has been a slight fall in the total number of offences reported and a general fall under all kinds of offences except under "Unauthorised felling, etc." The increase under this head is attributed to the greater vigilance displayed by the patrols in detection. The District Forest Officer, Vizagapatam, complained against the lenient punishments inflicted by Magistrates, but the Collector remarked that he and his predecessor agreed that no interference was necessary. The Collector of Kurnool considers that more care is required as to the manner in which cases are sent up to court, and that Deputy Rangers and even Rangers often betray a lack of elementary knowledge as to law and procedure and as to what constitutes legal evidence. He suggests that some elementary instruction on these subjects should be given to Rangers and Deputy Rangers. At the Madras Forest College, I believe that considerable attention is paid to this point and that students are taken to watch the hearing of forest cases. The Ranger himself should endeavour to improve the knowledge of those of his Deputy Rangers who have not been trained at the Madras Forest College.

43. There were 554 cases pending at the beginning and 446 at the end of the year. Of these latter, 121 were with Magistrates. Out of the cases brought to trial during the year 722 ended in conviction and 64 in acquittal against 758 and 88 respectively in the previous year, the percentage of failure was 8·14 against 10·40 in the previous year.

Closure of forests to grazing for not reporting or preventing illicit grazing or other offences on a large scale.

44. In Vizagapatam the privilege of free grazing of 200 head of cattle of Kondasantha villagers was suspended during the whole year owing to their indifference in rendering help with reference to fires in Sinivaram reserve. In Gōdāvari Lower free grazing was refused from April to the end of September 1916 to the villagers of Sivaramapatnam as they failed to render assistance in putting out a fire in Molleru reserve. In Kurnool West several offending villages were warned of closure to grazing for similar reasons.

45. Two thousand four hundred and sixty-seven cases were compounded for Rs. 25,416 against 2,330 cases for Rs. 24,310 in the previous year.

46. A few rewards were given for assistance in the detection of forest offences and for general protection, apart from the special sums distributed in Upper Gōdāvari and Kurnool out of the Circle Fire Protection allotment.

47. The following statement shows the number and classification of forest offences compared with the previous year :— *Central Circle.*

Class.	Injury to forests by fire.		Unauthorised felling or appropriation of wood and minor forest produce.		Grazing without permission or in tracts in which grazing is prohibited.		Other offences.		Total.	
	1914-15.	1915-16	1914-15.	1915-16.	1914-15.	1915-16.	1914-15.	1915-16.	1914-15.	1915-16.
Cases taken into Court ..	2	20	1,251	1,082	897	1,086	121	98	2,271	2,286
Cases compounded ..	3	5	4,440	3,813	3,335	2,837	209	149	7,987	6,804
Cases undetected ..	123	307	266	153	297	423	2	1	688	884
Total	128	332	5,957	5,048	4,529	4,346	332	248	10,946	9,974

There was a fall under all heads except injury to forests by fire which was chiefly in *Anantapur* and *Chittoor* due to incendiarism in both districts. The decrease in the total number of forest offences during the year occurs chiefly under "illicit felling" a less number of cases having been reported in all districts excepting *Bellary* and *Anantapur*.

The percentage of acquittal of cases taken to court was 10 against 9·66 in the previous year.

Six thousand six hundred and fifty-seven cases were compounded for Rs. 76,943 while 7,208 cases were compounded for Rs. 76,379 in the previous year.

The number of cases compounded was less than in the previous year but the amount of compounding fees was greater due to levy of deterrent fees in grave cases notably so in *Bellary*.

The punishments awarded by Magistrates are reported to have been generally adequate.

Rewards were granted in all districts except *Bellary*, for successful detection chiefly of illicit grazing and browsing offences and they amounted only to Rs. 527.

48. *The rules for the guidance of Forest Officers in compounding Forest Offences* were observed generally throughout the circle. During the year G.O. Mis. No. 1673, Revenue, dated 17th July 1915, was received prohibiting District Forest Officers' passing orders to confiscate the seized property when compounding an offence.

49. The following statement shows the number of offences of the year compared with the previous year :— *Southern Circle.*

Class.	Injury to forest by fire.		Unauthorised felling or appropriation of wood and minor forest produce.		Grazing without permission or in tracts in which grazing is prohibited.		Other offences.		Total cases.	
	1914-15.	1915-16.	1914-15.	1915-16.	1914-15.	1915-16.	1914-15.	1915-16.	1914-15.	1915-16.
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
Cases taken into court ..	6	21	1,936	3,070	778	676	130	105	2,850	3,872
Cases compounded ..	..	4	7,919	6,912	2,597	1,702	513	213	11,029	8,831
Cases undetected	243	630	236	120	16	43	37	..	532	793
Total ..	249	655	10,091	10,102	3,391	2,421	680	318	14,411	13,496

Out of 13,496 cases no less than 3,740 referred to unreserves and out of 10,102 cases of unauthorized felling 6,451 relate to reserves and 3,651 to unreserves. There was a marked decrease under grazing cases which is especially noticeable in South Arcot. In this district which holds a bad reputation in respect of forest crime the number of cases in reserves dropped from 1,959 to 1,441 but in unreserves increased from 848 to 1,583. The increase in unreserved cases is attributed to the addition of Tanjore range but the striking drop in reserved forest cases, in spite of this addition has not received proper comment in the district report.

There is a very large decrease of cases in the Trichinopoly district, the total number having dropped from 2,573 to 1,422.

The fall is most marked in the unreserves where the cases are less than half of those of last year.

The increase in the number of cases brought to trial is due in North Vellore to the Magistrate taking cognizance of every forest offence reported to him and issuing process before composition fees are paid, in Madura to some Magistrates habitually inflicting fines lower than the compounding fees and in North Salem to a great majority of cases ordered to be compounded having been taken to court for non-payment of compounding fees.

Cases brought to trial.

Year.	Convictions.	Acquittals.	Percentage of failure.
1914–15	2,712	158	5·50
1915–16	3,948	210	5·05

Cases compounded.

Year.	Number of cases.	Amount.
		RS.
1914–15	9,657	84,782
1915–16	7,898	56,054

In fixing the amount of compensation, attention was generally paid to the orders contained in G.O. No. 1990, dated 13th June 1910.

50. In *South Vellore* a case of theft of sandalwood from the Belur unreserve ended in the sentence of four months' imprisonment. In *South Salem* organized thefts of sandalwood from the Attur Periakalrayans were stated to have been started by a Chetti of South Arcot with the help of the local Malayalis. There were no less than fifteen cases detected which seems to show a regrettable recrudescence of this form of theft.

51. The reward system was sparingly used only Rs. 59 being distributed partly in *South Vellore* and partly in *North Salem.*

Western Circle.

52. The offences detected during the year are classified and compared with those of the previous year in the following statement :—

Class.	Injury to forest by fire.		Unauthorised felling or appropriation of wood and minor forest produce.		Grazing without permission or in tract in which grazing is prohibited.		Other offences.		Total cases.	
	1914–15.	1915–16.	1914–15.	1915–16.	1914–15.	1915–16.	1914–15.	1915–16.	1914–15.	1915–16.
Cases taken into court ..	11	41	420	410	152	142	75	86	658	679
Cases compounded ..	54	25	1,693	1,699	474	483	233	167	2,454	2,374
Cases undetected ..	133	456	31	25	15	18	2	8	181	507
Total .	198	522	2,144	2,134	641	643	310	261	3,293	3,560

NOTE.—The Revenue Divisional Officers in Central Coimbatore have not furnished particulars of the offences dealt with by them.

The total number of offences increased by about 8 per cent. The main increase was under "injury by fire" and was chiefly due to incendiarism mostly in *North* and *Central Coimbatore* and also to some extent to the exceptionally dry season. There was a decrease of 16 per cent under "other offences" which was mostly in the *Mangalore* divisions and has not been explained. The variations under the other heads are small and call for no special remarks.

Of the cases disposed of by the courts, about 90 per cent resulted in convictions which was one per cent less than that in the previous year. The number of cases withdrawn after being taken to court increased from one to fourteen ; the increase

was in *Central Coimbatore* and has not been explained. The punishments inflicted by Magistrates are reported to have been inadequate in some instances in *South Canara* and *North Coimbatore*, in the latter division fuel thefts appear to be increasing; in the *Nilgiris* a lenient view was taken in a few cases of incendiarism, the offenders being let off with fines of a few rupees. Elsewhere the punishment inflicted appears as a rule to have suited the crime.

Compounded offences.—The number of cases compounded and the amount of fees realized were 2,341 and Rs. 24,400, respectively, against 2,041 and Rs. 23,188 in the previous year. The last year's figures include the offences in unreserved lands in *Central Coimbatore*. There was a decrease in the amount of fees realized in *South Mangalore* and *South Coimbatore* while the number of compounded offences increased; the decrease in the former division is attributed to the smaller fees levied in petty cases and in the latter to there being no cases involving valuable seizures. *The rules for compounding grazing offences* were followed in all districts and worked satisfactorily.

Undetected offences.—It is observed that these are almost entirely cases of incendiarism due presumably to the fact that reports are insisted on wherever a fire occurs and the figure given is the total of the fire occurrence reports received after deducting fires caused in fire tracing. In the case of petty thefts noticed on patrol no such reports are made and consequently the number of undetected cases is low. I do not think any useful object would be served by tabulating such illicit removals.

Holding adjacent villagers responsible for commission of offences in particular forests.—Notices warning the villagers of their responsibility and of the punitive measures for commission of offences in the adjoining forests were published in *South Canara* and the four divisions of *Coimbatore*. No action was taken in the *Nilgiris* as the system was not workable and in *Malabar* where the number of offences were very few. Consequent on the occurrence of a large number of fires and of illicit fellings in the Bolampatti forests in *Central Coimbatore*, two blocks covering about 36 square miles were closed to grazing for three months. The grazing fees in *North Coimbatore* were doubled for 1916–17 as the result of incendiarism. In *South Coimbatore*, a monigar was suspended for three months for his failure to render assistance to the department.

53. *Rewards—South Canara.*—A Ranger was granted a reward of Rs. 60 for having worked up successfully a case of sandalwood theft. One Land Records Inspector and a village Potail were rewarded Rs. 15 and 5, respectively, for detection of offences. The *Nilgiris*—Rewards amounting to Rs. 8 were granted to forest subordinates for detecting cases of fishing and illicit grazing. *North Coimbatore*—Rs. 135 were granted to 26 persons in 14 cases of illicit felling, grazing and shooting. *Central Coimbatore*—Rewards amounting to Rs. 79 were granted to the forest subordinates for their energy and promptitude in four offences. *South Coimbatore*—Rs. 5 to a guard in connection with a case of illicit removal of timber and Rs. 10 to two coolies for detecting a case of setting fire to forests.

(*b*) *Protection from Fire.*

54. The areas attempted and protected are given in Form No. 72. The system of having boundary and fire lines cleared by purchasers of material thereon, which was followed with success in Chelama and Sirvel ranges of *Kurnool South*, was extended to Giddalore range of that division; but it proved a failure in *Kurnool West* in the attempt to have the 100 feet wide fire line cut along the Mantralakanama ghat road by contractors owing to inaccessibility of the line. To Mr. Thompson must be given the credit of having introduced the system of selling the right to cut his lines. Some of his lines which would have cost large sums for felling have sold for Rs. 300 per mile. In *Ganjām*, the reserves have been classified under "rigidly protected," "partially protected" and "unprotected areas" with regard to the barriers existing against fires approaching the areas; fire tracing in this division was delayed owing to late rains; clearing of lines was commenced on 15th December 1915 and burning of grass on guide lines was not commenced till the end of January 1916 owing to the greenness of the grass; the burning of frontier lines along the Agency Maliahs in Russellkonda and Mojjagoda ranges was *Northern Circle.*

not completed till about the middle of March 1916; this was due to some extent to the indifference of the range staff; consequently several fires occurred two of which alone burnt 16,789 acres of partially protected forests. In Pondakhol reserve which is under rigid fire protection there was one fire which crossed from the adjoining zamindari forests burnt 600 acres; another fire in the sal massifs and coupes which were also under rigid protection burnt 234 acres; some of these fires were started by Khonds for shikar and podu purposes; the fires that came from the frontiers could not be checked as the places were not easily accessible; in future for such places Khonds will be appointed as fire patrols and grass and regrowth on all lines removed entirely to enable fire tracing to be completed in January. The general result of fire protection in this division is satisfactory considering the percentage of areas burnt in the "rigidly protected," "partially protected" and "unprotected" areas which are ·98, 10·00 and ·88 respectively. The season was unfavourable. In *Vizagapatam* 3,045 acres in the specially protected area of Dharakonda reserve was burnt partly through slackness of subordinates and partly through the apathy of the villagers of the adjoining mutta: these villagers were warned that a repetition would entail the withdrawal of their privileges. The present District Forest Officer during the year put down the former practice of annually charging a fixed and by no means inconsiderable sum for "clearing" lines that are bare throughout the year. The general result may be considered fairly satisfactory although over 42 per cent of the "generally" protected areas which had no special protective measures of any kind were burnt; whereas in the specially protected areas with fire lines and fire patrols the percentage burnt was 0·26. In *Gōdāvari Upper* the system of lump-sum payment for line clearing combined with proportionate rewards for successful protection was continued, but a larger area was burnt during the year than in the previous year. The District Forest Officer considers that it is partly due to deliberate incendiarism by one or two hostile *patels* in Marrigudem range; the Collector intends paying personal attention to this matter. Fire was excluded from 75 per cent of the area attempted to be protected against 88 per cent in the previous year. The result is fairly satisfactory. In *Gōdāvari Lower* the services of hillmen were as usual utilised and the protection was apparently very satisfactory, being 97 per cent. In Kistna out of 47,642 acres attempted 44,688 acres were protected in spite of the severe hot weather and want of timely rains, and the result may be considered very satisfactory. The season throughout Kurnool was undoubtedly unfavourable. In Kurnool East 54 per cent against 90 per cent in the previous year was protected, the season was very dry and the Collector and the District Forest Officer are of opinion that the Pecheruvu Chenchus have fired the forests out of spite because they were prevented by the police from collecting their customary tolls from pilgrims to Sriselam; these pilgrims also appear to have caused accidental fires. One such pilgrim was detected and the case against him compounded. The fire protection in this division cannot be considered successful. In Kurnool South owing to heavy and late rains fire tracing had to be continued till the end of February 1916; protection was not as good as in the previous year; there were bad fires in Chelama and Gundlakamma ranges owing to want of control over fires on the part of new subordinates, to injudicious counterfiring and in the case of Chelama to an incompetent and lethargic acting Range officer; in the Sirvel range the protection was very good being 43,704 acres against 7,779 acres successfully protected during the previous year, the new lines in this range are getting yearly less covered with regrowth. Twenty-seven per cent of the specially protected areas and 1·85 per cent of areas which had no special protection measures were burnt during the year. The general result cannot be considered satisfactory especially in the important ranges of Chelama and Gundlakamma. In Kurnool West the number of fires was less but the area burnt more than in the previous year; one very big fire which burnt 32,000 acres in the specially protected block of Nandyal range is strongly believed to be the work of some timber thieves of Narayanapuram and other villages; this fire was started simultaneously at several places and no assistance was rendered by the villagers for extinguishing them; Chenchus on the other hand distinguished themselves by working hard to put them out; there were some fires in the neighbourhood of Nagaluti and Pecheruvu gudems where also the stoppage of the collection of metta fees (tolls) from pilgrims to Sriselam is reported to have enraged the Chenchus to incendiarism; as, at present, the promise of reward for protection alone is not sufficient to deter Chenchus from their

customary firing, it is proposed to grant future rewards for regular work throughout the year which will include helping to put out fires and failure to do so will entail forfeiture of rewards otherwise earned by regular work. The percentage of areas burnt in the "specially protected" and "generally protected" areas is 28·96 and 10·20 respectively. Like Kurnool South the result cannot be considered satisfactory.

55. *General.*—A sum of Rs. 57,442 was spent during the year on fire protection. The area dealt with was 4,608 against 4,447 square miles in the previous year. Three thousand nine hundred and twenty-seven square miles were successfully protected against 4,094 square miles in the previous year ; the proportion of failure rose to 14·77 from 7·94 in the previous year ; the cost per square mile successfully protected fell to Rs. 14–10–0 from Rs. 15–15–1 in the previous year ; the fall is due chiefly to cheaper protection in Kurnool South where the new lines are getting yearly less covered with regrowth. I am convinced that fire protection would be far more successful if no lines were burnt after February 15th *at the latest* (all work of this nature if incompleted being stopped then or even before this date if the forests are very inflammable) and if no counterfiring were permitted except in the presence of a trained Ranger. I am of opinion that wherever feasible lines should be cut in November, burnt in December and re-burnt in January.

The ideal is to get bare lines and to attain this object it is worth while spending a considerable sum, which should be debited to capital.

Appendix A shows the number and origin of fires.

Central Circle.

56. The area of forest tracts protected is shown in Form No. 72. There was no change in the system of fire protection.

The area under special fire protection during the year was 2,221 square miles against 1,835 of the previous year and the area burnt was 349 square miles compared to 121 square miles.

In *Bellary*, the Sandur leased forest, plantation in Adoni range and the felled coupes were protected, but there were three large fires in Sandur range one of which burnt the whole of Donimalai block. In Bandri reserve 6,311 acres were burnt. In *Anantapur*, the fire protection in Bukkapatnam range was specially bad on account of the Ranger in charge (since dismissed) not taking any interest in his work. In *Guntūr*, there were some small fires said to be due to the introduction of enhanced grazing fees and closure of forests to grazing. In *West Cuddapah*, the decrease in area burnt was due to fire tracing of inter-divisional and exterior fire lines and closer scrutiny of fire protection operations. In *East Cuddapah*, the fall in the area protected is due to increased wilful incendiarism. In *Nellore*, the increased area burnt was due to unfavourable year. In *Chingleput*, for all felled areas, coupe and compartment lines were cleared while special patrols were employed for specially protected areas, viz., Kambakkam and Nagalapuram reserves. In *Chittoor*, the year was unfavourable and there were serious fires in Chamala, Nagapatla-Tirupati extension, Horsleykonda and Naikaneri reserves, and the villagers were warned by the District Forest Officer during his enquiry.

The origin of fires is given in Appendix A.

Southern Circle.

57. *Special protection.*—There was no change in the system of protection during the year. The area attempted to be protected was 1,157 square miles against 1,023 square miles in the previous year. The increase is partly in Madura (83 square miles) and partly in Trichinopoly where 103 square miles have been hitherto wrongly classified as general protection. In *South Arcot* and *Trichinopoly* the area burnt is very small which may probably be attributed to the very heavy grazing incidence. In all other districts except *Tinnevelly* the fire season was a bad one. In *South Vellore* the area successfully protected dropped from 99·7 to 86·2 per cent and in *North Salem* the area burnt was nearly 19,000 acres as compared with 5,000 acres in the previous year. The area burnt during the year was 90·40 square miles against 18·31 square miles in the previous year. The percentage of area successfully protected during the year is 91·37 against 98·2 per cent in the previous year. The cost per square mile of successfully protected area fell from Rs. 18–15–4 to Rs. 16–2–2.

58. *General protection* was attempted over 3,144 square miles against 3,137 square miles in the previous year. The percentage of failure rose from 0·4 per cent to 2·4 per cent during the year.

59. The number and origin of fires are given in Appendix A. There were 697 fires burning 117,299 acres against 258 fires burning 20,715 acres in the previous year. There is no doubt that the great majority of the fires were due to incendiarism. Very few cases were actually detected.

Western Circle.

60. *Special protection.*—The usual methods of fire protection were followed. The season was generally dry and unfavourable. The area attempted to be protected was 1,127 square miles, i.e., 26·5 per cent of the total forest area, having been decreased by 12 square miles. The decrease was in *Central Coimbatore* (21 square miles) partly counterbalanced by an increase in *Mangalore* divisions (7 square miles) and *South Coimbatore* (2 square miles), chiefly due to transfers from special to general protection and *vice versa*. The area burnt was 120 square miles, giving 89·3 per cent of success compared with 99·2 per cent in 1914–15 and 90·4 in 1913–14. All divisions except *Kollegal* show an increase of failure. 62·4 per cent of the total area burnt was in *North Coimbatore* where there was an epidemic of fires mostly lighted to obtain tender grass. In this division the forests in the Minchiguli valley, Geddesal and other areas containing *Dalbergia latifolia*, *Terminalia tomentosa* and *Pterocarpus Marsupium* are gradually being converted into stunted forests of inferior firehardy species, such as *Anogeissus latifolia* and *Kydia calycina*. About 12 square miles in the Mudumalai forests in the *Nilgiris* were burnt, while the failure in the previous year was 5½ acres. The privileges (free grazing and removal of produce for domestic purposes) allowed to the resident villagers in the forests were suspended for one year for their failure to render assistance in fire protection. In *South Coimbatore* the assistance of hill tribes was enlisted as usual for fire protection. They were granted a reward of Rs. 127 for the successful protection in one of the ranges during the fire season of 1914–15. The cost of protection per square mile of area attempted was Rs. 24–4–11 against Rs. 24–3–6 in the previous year.

61. *General protection.*—The area attempted to be protected was 2,498 square miles against 2,482 in the previous year and the percentage of failure rose from 1·4 to 16·1. Eighty-three per cent of the failure was in *North Coimbatore* for the reason mentioned under "special protection"; as the result of these fires, punitive measures have been taken as mentioned in paragraph 52 supra. It is believed that a point is made of burning the forests every second or third year to get young grass and kill the shrubs and thorny creepers.

62. The number and origin of fires during the year are given in Appendix A. The total number of fires was 563 against 208 in the previous year and the area burnt was considerably more, the average per fire having risen from 141 to 611 acres. *North Coimbatore* division was responsible for more than three quarters of the area burnt; the District Forest Officer knows personally most of the area burned. In some of the other districts the area is undoubtedly understated.

(c) *Protection from Cattle.*

Northern Circle.

63. Out of 5,099 square miles of forests 1,289 square miles were closed to all animals throughout the year and 11 square miles for part of the year against 1,163 square miles for the whole year in 1914–15. Goats were completely excluded from all reserved forests with the exception of a small number admitted under Chenchu settlement rights.

64. Appendix B shows the number of cattle impounded compared with the average of the three years preceding.

Central Circle.

65. The area closed and open to grazing is shown in Form No. 73. With the close of the year 1915–16, goats have been prohibited from entering the reserves except in portions of Kayar, Kolathur and Mambakkam, Chingleput district, used as artillery practice ground. The total number of animals grazed amounted to 1,214,480 which is less than last year; the decrease in all districts was chiefly due to enhancement of grazing fees for goats in *Bellary*, to the introduction of a grazing scheme for forests in *Guntūr*, to handing over of certain reserves to panchayat management in most districts and to the closure of pentahs in the Palakondas of *West Cuddapah* district. The decrease in *Nellore* was due to limitation of grazing introduced under kancha system.

To get rid of the nuisance of Sriharikota semi-wild cattle, the Government were pleased in their order No. 935, Revenue, dated 27th April 1916, to approve the proposal for the initial reservation of all the enclosures in the Sriharikota reserve for the extinction of all the rights in the reserve.

66. An analysis of the cattle impounded is given in Appendix B.

Southern Circle.

67. Eighty-two per cent of the total area of reserved forest was opened to grazing of cattle but closed against goats. The incidence of grazing in the several districts of the circle is given below :—

District.	Number of cattle in cow units.	Area in acres.	Number of acres per cow unit.
North Vellore	97,233	267,667	2·75
South do.	143,533	432,189	3·01
Do. Arcot	111,162	192,000	1·73
North Salem	135,917	470,446	3·46
South do.	103,951	334,720	3·22
Trichinopoly	128,360	193,920	1·51
Madura	82,600	362,880	4·39
Tinnevelly	27,680	122,880	4·44
Total ..	830,436	2,376,702	2·86

The number of cattle grazed shows a reduction on last year but forests cannot be expected to improve until the incidence is much reduced.

68. An analysis of the cattle impounded during the year with the average of three years is given in Appendix B.

Western Circle.

69. The proportion of forests open or closed to grazing was as follows :—

	1914–15. PER CENT.	1915–16. PER CENT.
Closed to all animals for the whole year	14	13
Do. do. for part of the year	...	1
Do. sheep for the whole year	10	10
Opened to all animals except goats for the whole year...	76	76

Goats are not allowed into the reserves. The decrease in the first of the above items was in *North Malabar* (18 square miles) due to a mistake in the figures furnished for the last year, in *North Coimbatore* (12 square miles) to the opening of a portion of the Minchiguli block and in *Central Coimbatore* 36 square miles were thrown open. The number of cattle impounded was 10,054 as compared with 9,338 in the previous year and 9,442, the average of three years. There was a marked increase in *North* and *South Coimbatore* due to better supervision and a decrease in *Central Coimbatore* to a larger number of cattle licensed for grazing.

(*d*) *Protection against Injuries from Natural Causes.*

Northern Circle.

70. *Ganjām.*— Defoliating caterpillars attacked sal but the trees resumed their foliage in a fortnight; wild elephants damaged sal regeneration in massifs in Chendragiri reserve, creeper cutting under a more methodical system was introduced. *Vizagapatam.*—Caterpillars attacked a few palmyras in Chinnamangalapuram tope. The palmyras were felled and burnt in Peddakonda coupe ; the bark of a number of standards was pealed off by sambhur. *Gōdāvari Upper*—Correspondence with the Forest Botanist, Dehra Dun, on the subject of identification of the Jacids referred to in last year's report is still in progress: the insect continued to damage teak and *Anageissus latifolia* leaves in Nugur range ; some other insects which have not yet been identified have deen observed to bore through the sap and heartwood of *Xylia dolabriformis*.

Central Circle.

71. A gall insect is reported to have attacked the leaves of *Pongamia glabra* and *Prosopis spicigera* in Adoni range of *Bellary* district. In *Guntūr*, owing to hot winds some damage was caused to a few standing trees in casuarina plantations of Bapatla range. In *West* and *East Cuddapah* a caterpillar was observed defoliating *Pterocarpus santalinus* and *Anogeissus latifolia*, but the early rains in July minimised the damage done in *West Cuddapah* and a specimen of the caterpillar was sent to Dehra Dun for

identification by District Forest Officer, *East Cuddapah*. In *Chingleput*, creepers and prickly-pear in Guindy Park were removed by subordinates and the lantana in it removed at a cost of Rs. 418. In *Chittoor*, lantana in Horsleykonda was eradicated to a small extent.

Southern Circle.

72. *Prickly-pear.*—Practically nothing has been done towards preventing the spread of this pest except in *South Salem* where a preliminary attempt at eradication has been made in five coupes.

Eradication has been ordered in certain places in the *Madura* working-plan.

Lantana.—It is regrettable that no further work of eradication is reported from *Tinnevelly* where systematic work was begun last year.

Eradication has been prescribed in some of the sandal areas of *North Salem* in the new working-plan but it is evident that far more sustained attempts to remove this pest should be undertaken throughout this circle.

"*Spike*" *disease.*—Two new infected areas were discovered in *North Salem* and one in Perambalur of *Trichinopoly*. There is no doubt that the disease is spreading gradually and at present no successful method of combating the disease has been discovered. There is no spike in *Tinnevelly*.

The researches of Dr. Coleman of Mysore have however gone some distance in solving this difficult problem. Some new facts concerning the disease were discovered in the course of the Conservator's tour in the Kollimalai Hills of *Trichinopoly*.

Mr. T. N. Hearsey has been employed on special duty in *North Salem* to investigate the disease. He has made some interesting discoveries in connexion with insects which appear to be producing phyllody not only in sandal but in many other species. It is noteworthy that the special bug which is suspected in *North Salem* was also found on a "spiked," sapling in Perambalur, more than 100 miles away. An early solution of the problem is hardly to be expected but the systematic investigation which is now being pursued is bound to improve our knowledge in connexion with the disease.

Damage by sambhur.—Sambhur as usual continued to do a good deal of damage in *Tinnevelly*.

Western Circle.

73. *Spike disease in sandal.*—*Kollegal* reports that the attempt to stop the spread of spike at Bailur by uprooting every sandal tree and plant and *Zizyphus œnoplia* within 100 yards of the area infected with spike has proved a failure as the disease has crossed the line. The disease continues to spread both in *Kollegal* and *North Coimbatore*, new infection centres having been found near Hosahatti and Kodipuram. There has also been a serious recrudescence near Hassanur. Careful inspection with a lens of leaves and flowers which have recently died on spiked trees in wet weather often shows black sporophores with spores attached; whether these follow or cause spike the writer is unable to say; he thinks the first sign of spike is the death of individual inflorescences as a whole and their not falling normally, the flowers appear to drop one by one often before they are quite dead.

Lantana.—A start has been made at eradicating this pest especially in *South Coimbatore*, and *North* and *South Malabar*: *North* and *Central Coimbatore* and the *Nilgiris* have made a beginning. This pest is also prevalent in *Kollegal* and *Mangalore North* and *South* and will have to be attacked there too.

Prickly-pear.—The schemes referred to have been drawn up in several districts and a good deal of money has been spent in some cases, details however of the areas dealt with have not been reported.

Teak defoliators.—*Hyblæa puera*, *Varnigra* appears to have stripped about half of the Panengode (1886) and Chatamborai (1875) plantations and the whole of the 1874 Chatamborai one. Karimpoya (1902 to 1906) were almost completely stripped between March and June 1916 by *Pyrausta machæralis* which also occurred in the Arevakode, Pokote and other plantations. No information is available as to whether any preventive or curative measures were undertaken.

Locusts.—Seven hundred and fifty-eight seers were collected in the Karimpoya teak plantations (1897 to 1900) in *South Malabar* at a cost of Rs. 52.

Beetle attacks following fire are reported to have killed a lot of *Shorea talura* in *North Coimbatore*.

4. Sylviculture.

(a) *Natural Reproduction.*

74. In *Ganjām* it is reported that sal did not flower during the year—an unusual occurrence; it has begun to establish itself on suitable soil in unprotected areas. In *Vizagapatam* reproduction of sal in three reserves of Palaconda range was excellent; it has been observed coming up in patches of even aged advance growth, coppice reproduction in felled coupes was also satisfactory; reproduction of *Xylia dolabriformis* was particularly good wherever occurring, other important species such as *Chloroxylon swietenia* were reported to have been good in parts of Golugonda range. In *Gōdāvari Upper* natural reproduction of the main important species was good. In *Gōdāvari Lower* reproduction from seed was fairly satisfactory in all the ranges; coppice reproduction of *Pterocarpus marsupium* and *Xylia dolabriformis* was satisfactory; reproduction from rootsuckers of *Chloroxylon swietenia*, *Xylia dolabriformis*, etc., was very good. In *Kistna* reproduction from seed was satisfactory in Bezwada and Ellore ranges; coppice reproduction was good in all the ranges; Mangrove (*Avicennia officinalis*) reproduction was excellent in some reserves. In *Kurnool East* natural reproduction in specially protected areas was fairly good; in the bamboo cleared area near Maddipenta a dense crop of *Dalbergia latifolia* is springing up. In *Kurnool South* owing to very good rainfall of the previous two monsoons reproduction of the principal species was more or less good everywhere and as evidence of the protection of the previous eight or ten years seedlings and Fire coppice shoots are prevalent. In *Kurnool West* natural reproduction in the open areas of the Yerramalais was poor owing to excessive grazing; within the stonewalled areas however it was good especially of *Hardwickia binata*. Teak shows astonishing vitality and comes up year after year in spite of being burnt back repeatedly, an excellent example of which is reported to have been seen in Mettupalli reserve in Dhone range where teak-roots 7 or 8 inches in girth are common, while the ærial shoots reach only a height of a few inches. Natural reproduction in the Gundlabrahmeswaram range of the Nallamalais was good owing to successful protection from fire and grazing; it was moderate elsewhere. *Northern Circle.*

I am inclined to think that what have been called teak rootsuckers are really fire-coppice shoots. It has been denied that there is any teak in the Railway Working Circle of the Nallamalais much over 40 years of age. I had a teak of about eleven inches diameter felled. The stool showed 73 rings plus one inch of core (i.e., fire-coppice period). Its age must be at least between 80 and 90 years. In this working circle there is no lack of teak of about the same girth and appearance.

In *Gōdāvari Lower* Division the question of the reproduction of one of the Mangroves by blind sucker-shoots is now under investigation.

75. In this connection there is not much of interest in the circle to report. Coppice reproduction in the felled coupes is reported to have been satisfactory, especially that of *Pterocarpus santalinus* in *Cuddapah* and *Chittoor* districts. *Central Circle.*

Sandalwood is reported to be rapidly spreading in the Palmaner range of *Chittoor* district. It is also found in Chamala and other reserves of the Tirupati range.

In *Guntūr* district the reserves are still subjected to heavy grazing and natural reproduction is therefore not satisfactory.

76. (1) *Sandal.*—The distribution of sandal in this circle is far larger than has hitherto been suspected. It occurs in every district in the circle. Somewhat sparsely in *North Vellore* (Palar and Amerdi plantations), *South Arcot* (outliers of the Kalrayans), *Madura* (Sirumalais) and *Tinnevelly* (Srīvilliputtūr and Kuttalam). In the latter district it is extending round Mundanthorai. It is at its best in the Javadis of *South Vellore*, but there are large workable areas in *North Salem*, *South Salem* (Chitteris, Kalrayans, Pachamalais and Kollimalais with scattered trees in almost every other hill area, and in *Trichinopoly* (Pachamalais and Kollimalais). The natural regeneration of this species is excellent everywhere more especially in the Kottur block (Yelagiris of *South Vellore*) and Melpat (Javadis), the hills of *North Salem*, the Chitteris of *South Salem* and the Pachamalais of *Trichinopoly*. *Southern Circle.*

(2) *Albizzia Amara.*—From nearly every district an excess of coppice shoots of this species is reported. Experiments in thinnings are to be carried out in *Madura* and the results must be carefully watched.

(3) *Chloroxylon Swietenia.*—Seedling growth is very noticeable even in the driest forests of *South Vellore*, whilst in several districts the coppice from this tree is remarkable. In *South Vellore* the growth from coppice exceeds 1½ inches girth per annum.

(4) *Hardwickia Binata.*—In Pavungipattu block of *South Arcot* the seedlings are carpetting the ground and in *North Salem* reproduction of this species is good.

(5) *Pterocarpus Marsupium and Dalbergia Latifolia.*—Seedling reproduction is capital in nearly all the hill divisions.

(6) *Hopea Parviflora and Balanocarpus utilis.*—Seedling reproduction is good in *Tinnevelly*.

(7) *Messua Ferrea and Gluta Travancorica.*—The reproduction of these species is specially good in the evergreen forests of *Tinnevelly*.

(8) *Bambusa Arundinacea.*—These species flowered gregariously in Kuttalam (*Tinnevelly*) and in parts of *North Salem* but there seems to have been no such flowering in other parts of the circle.

Western Circle.

77. The bamboo flowering extended to the Mount Stuart forests in *South Coimbatore* and has continued in the *Nilgiris*, *Malabar* and *Kollegal* and in *Mangalore*, *South* and *North*. The question of how to take advantage of the bamboo flowering in *South Coimbatore* with a view to getting in a larger proportion of teak and other valuable timber trees is under consideration by the Working Plans Officer who started work after the close of the year. On the whole natural regeneration has not been as good as usual owing to the intense fires which have occurred in nearly all the districts of the circle. *Hopea parviflora* is reported to have seeded well in *South Malabar* and in *Mangalore*, *South*, but very badly in *Mangalore*, *North* where the conditions are similar.

Natural regeneration of teak does not succeed. Experience shows that the plant must have almost complete light if it is to reach the pole stage.

(*b*) *Artificial Reproduction.*

Northern Circle.

78. Form 75 shows the areas under plantations or cultural operations.

Regular Plantation.—*Kistna*; the plantations in Malleswaram and Weld reserves were maintained, the former is shortly to be sold. *Kurnool East* in the existing plantations of the Gudem range casualties were replaced from small nurseries maintained near each plantation: these nurseries were looked after by Chenchu women and boys; in the plantations at Maddipenta and Peddachama a very large number of teak plants established themselves permanently; in the plantation at Telugurayanicheruvu teak seems to have a tendency to branch quite early, probably an indication that the soil is unsuitable; in Maddipenta and Peddamantrala plantations grass and some bamboo regrowth which interfered with the growth of the plants were removed. *Kurnool West*—The teak plantations at Nagaluti, Bairluti, Pasurutla, Rudracode, Sudem, Pangidi and Honkaram and the Sandal plantation at Pecheruvu were maintained. The area newly planted at each of the above during the year was reduced to 20 acres as the Chenchus for whose occupation they were started were being tried on other work.

Cultural operations.—*Ganjām* 25 Banyan and 50 *Caryota urens* plants were planted fairly successfully in the Napiers park to provide fodder for elephants. *Gōdāvari Lower*—The sowing of Mada (*Avicennia officinalis*) in Coringa reserve was stopped as previous operations had proved a failure. *Kistna*—The Sandal plants in Kondapalli reserve and the 650 Sandal plants around the Kondapalli Palace bungalow are coming up well. Babul (*Acacia arabica*) seeds sown broadcast in the fenced area of Nachugunta Block II germinated well; previous year's sowings are also thriving. *Kurnool East*—Sandal and Red Sanders (*Pterocarpus santalinus*) and seeds of evergreen species were dibbled in selected localities in Markapur and Morricheruvu ranges; bamboos were cut back in the Gudem range to allow of the persistence of better species. A profuse mass of seedlings of *Dalbergia latifolia* resulted in one of such cleared areas; it will be necessary to repeat the clearing more than once—an

expensive operation—to guarantee the future of the young stock. *Kurnool West*—Sandal seeds mixed with teak were dibbled in coupe IV of Gundlabrameswaram range ; most of them germinated but 50 per cent died during hot weather.

79. The area under artificial reproduction is exhibited in Form No. 75 and it has been revised with reference to the instructions issued by the Board in B.P. Forest No. 49, dated 1st April 1916. *Central Circle.*

Regular plantations.—The existing plantations were continued to be maintained in the circle during the year except the Meyyur plantation which was disafforested during the year and further planting operations have been stopped ; but in *West Cuddapah*, 4,000 palmyra seeds were sown in Rameswaram reserved forest.

Cultural operations.—In *Anantapur*, the sowing of sandalwood was carried out as an experimental measure in five reserves at a cost of Rs. 147. There was germination in some reserves but most of the seedlings died in the hot weather. In *Guntūr*, cashew nuts and palmyra seeds were sown in some reserves and a fair percentage of seeds is reported to have germinated. In *East Cuddapah*, red sander seeds were sown in 600 pits in the enclosure at Tummalabylu in Seshachellams, but the result was a failure. Sandalwood seeds sown in Mellamkonda reserve are reported to have germinated. In *Nellore*, seeds sown broadcast in closed areas germinated but they could not survive the hot weather. In *Chittoor*, mound sowing of red sanders in Chittoor reserve has not been on the whole satisfactory for want of timely rain. The sandalwood seeds sown in Musalimadugu reserved forest and in Mordana bungalow also have not been successful.

80. *Regular plantations.*—Form 75 has now been correctly prepared as far as possible. The only districts in which there are regular plantations are *North Vellore*, *Madura* and *Tinnevelly*. There were no actual additions except in *Madura*, where seeds were put directly into the ground. This experiment was far from successful. *Southern Circle.*

In Tinnevelly 32,000 palmyra nuts and 8,000 cashew were sown in areas already operated upon in the Teri reserve. Two hundred and sixty-three Banyan and 600 Odina Wodier cuttings were put out along rights-of-way. About 25 per cent of these have begun to shoot.

Taungyas.—It has not been reported why the successful Taungya plantations at Kariar were not added to and this want of continuity is to be regretted.

Cultural operations.—*South Arcot* shows a large area under cultural operations and a further addition of 529 acres during the year. In reality nothing but a desultory sowing of seeds by subordinates has been done and the operations are of little use.

On the other hand the cultural operations in *Tinnevelly* have been very successful in some places and would have been more so had subsequent weeding been properly attended to. This year's results are said to be poor.

81. *Regular plantations.*—In *South Malabar* a start has been made to extend the teak plantations again and 12 acres were prepared for planting 6′ × 6′. In the *Nilgiris* the experimental plantations of hard-wooded species of *Eucalyptus* at Aramby, Snowdon and Kēti were maintained and the casualties replaced. The area is 132 acres and the cost to date has been Rs. 14,285 which appears a somewhat prohibitive figure for five or six years' work. *Western Circle.*

Taungyas.—In *Mangalore, South*, no payments were made as the teak plants put out did not reach the height limit of 3 feet. In *North Malabar* 76 acres of land in which bamboo had seeded were cleared in the Begur range with a view to sowing teak seed, two areas aggregating 56 acres are stated to have been partly sown the rest being treated in accordance with the instructions issued by the District Forest Officer. What these were is not stated. The plants in 236 acres in the Kanoth range seem to have failed completely.

Cultural operations—North Malabar.—In Chedleth range the group system of planting teak in blanks was continued, 20,000 seedlings being put out at a cost of Rs. 300. In Begur range 6,864 teak seedlings were put out at a cost of Rs. 227, the difference in the cost is due apparently to some lantana clearing ; results are not intimated. The experiment in *South Malabar* referred to in the last report of underplanting teak was not carried out in accordance with the proposals approved. *Cassia*

fistula, *Dalbergia latifolia*, *Xylia xylocarpa* and *Terminalia tomentosa* were put out on an area of 12 acres at a cost of Rs. 843. *Hopea* seed was obtained in June from *Mangalore, South*, and sown broadcast in Pokote, Panengode and in the nursery at the District Forest Office. In *Mangalore, South*, a some desultory sowing and planting has been done principally of *Hopea* and *Terminalia tomentosa*. In *North Coimbatore* and *Kollegal* a fairly large quantity of sandal seed was dibbled in. The results of the sowings mentioned last year *s. v. Kollegal* appear to have been a failure. It seems probable that the dibbling of sandal seed in these two districts which are overrun with "spike" is waste of money. *Kollegal* does not refer to the result of the *Acacia arabica* sowing in Dodda Induvadi reserve. Unnecessarily large quantities of seed are indented for by outside districts. I suggest that before indenting, some calculation should be made of the number of seeds to the pound, say for teak, *Pterocarpus Marsupium*, sandal and *Terminalia tomentosa* and that the indenting officer should state the area he wants to plant and that supplies be made accordingly.

(*c*) *Operations for the improvement of growing stock.*

Northern Circle.

82. *Creeper cutting.*—In *Kurnool East* near Peddachama and Chintalagudems the Chenchu women and boys were employed in cutting back creepers which interfered with the growth of better species, prickly-pear was removed in Chinaganipalli and Badvid extension reserves to free the palmyra seedlings. In *Kurool West* bunding of streams in the working plan area of Gundlabrahmeswaram and creeper cutting in coupe VI were done; eight miles of stone walling in Yaperlapad and South Dhone reserves were also constructed.

Central Circle.

83. *Timber improvement fellings.*—In *West Cuddapah*, 1,167 acres of forests, in *East Cuddapah* 1,665 and in *Chittoor* 479 acres were felled over. *Coppice felling* was as usual carried out in all the districts of the circle for supply of firewood. *Fencing* of all felled coupes is reported to have been done in all districts. *Cutting of creepers and climbers* was carried out in *West and East Cuddapah*, *Nellore and Chittoor*. *Bunding of streams*—Old bunds were repaired in *Bellary* and new ones constructed on a small scale in *Chittoor*. *Stone-walling* was done in *Anantapur*, *West and East Cuddapah and Chittoor*.

Southern Circle.

84. The cutting of creepers on standards by the subordinates is carried out in most districts and coupes were fenced.

In the Javadis and Yelagiris of *South Vellore* some really useful work was done in the removal of creeper growth in the sandal areas. 42,207 acres were systematically dealt with in this way.

Similar work was done in the Chitteris of *South Salem* but the area treated has not been reported.

Similar operations are greatly needed in *North Salem* and in the Pachamalais and Kollimalais where the work carried cut has been entrusted to subordinates and in consequence not properly carried out.

Creeper cutting was also carried out in the Ambasamudram range of Tinnevelly to free the better Shola trees but the area operated upon has not been reported. Such work to be of real value ought to be carried out under a regular scheme.

Western Circle.

85. In *Mangalore, South*, light improvement fellings and creeper cuttings were done over an area of 1,270 acres. In *Mangalore, North*, 1,645 acres were so dealt with. The work is an important one and should receive special attention. In *South Malabar* thinnings were begun in five of the teak plantations but were not completed (area not stated). *Loranthus* was removed and burned from an area of 306 acres. Creeper cutting was done in 293 acres; pruning over an area of 80 acres and the weeding of 490 acres of young teak plantation were carried out. In *South Coimbatore*, 295 acres were weeded to free young teak, rosewood and *Pterocarpus*. As usual the cutting or girdling of soft wooded trees in fuel coupes was carried out in *Kollegal* and *North Coimbatore*. In the *Nilgiris*, improvement fellings and creeper cutting was carried out over an area of 160 acres in block I of the Mudumalai working circle and thinning in the Mutinad plantation. Dead, dying and unsound teak were extracted from an area of 992 acres.

(*d*) *Experiments.*

Northern Circle.

86. Sandal is reported to be doing well in most divisions, especially at Diguvametta in Kurnool South and at Kondapalli in *Kistna*. As regards other species the experiments are at present on such a minute scale as to call for no special notice.

Test of annual increment.—In *Gōdāvari Lower* with a view to determine the quantity of annual growth, five sample plots of 1 acre each were taken in the portion worked out in Kovvada fuel coupe of the Polavaram range. They were clear felled and the results recorded.

Central Circle.

87. There is nothing of interest to report. *Dalbergia sissoo.*—In the Moka plantation in *Bellary*, the height of the old plantations varies from 20 to 25 feet, in those of 1912–13 from 3 to 6 feet and in those of 1913–14 from 1 to 4 feet. *Eucalyptus globulus.*—The growth in *West Cuddapah* is reported to be not satisfactory, but in *East Cuddapah and Chittoor* they are reported to be growing fairly well. *Acacia auriculiformis.*—These plants in *West Cuddapah* are still surviving but are not doing well. *Swietenia Mahogani.*—In *East Cuddapah*, these plants with the exception of 3 are alive but the rate of growth is very slow. In *Chittoor* they continue to do fairly well.

Southern Circle.

88. (1) *Dalbergia Sissu.*—This species is doing well in *North Vellore* but failed in *South Arcot.*

(2) *Pterocarpus Santalinus.*—This species continues to do well in the Amerdi and Banavaram plantations of *North Vellore* and as the tree is easy to propogate it should be much more widely introduced in this district.

(3) *Experiment to destroy creeper growth.*—This was tried in several districts. In Northern India it was recommended that the cut ends should be treated with a thick lime paste. It is too early to state definite results at present but the lime paste does not appear to stop the growth.

(4) *Sandalwood girdling experiments.*—These experiments were started by the Working Plans Officer in *South Vellore* as it was claimed for girdling

(*a*) that rootshoots would be produced,
(*b*) that the heartwood would be increased,
(*c*) that by the gradual killing of the tree the heartwood would not be liable to cracking.

The experiment is as yet imperfect but it is observed that, though a large number of shoots spring up from below the girdle, true rootshoots are not produced unless the actual root is wounded. There does not appear to be any increase in heartwood by girdling but further observation is necessary. As the trees have not been removed yet no report on the third point is possible.

Western Circle.

89. Painting with lime of stumps of creepers cut was tried but no definite results have been arrived at yet. In *Mangalore South*, an attempt on a small scale was made to float timber down the Paishwani river to Kasaragod. Seven hundred and thirty-eight cubic feet were brought down at a cost of Rs. 218 (excluding felling charges), the timber and bamboos realizing Rs. 399. In the *Nilgiris* and *South Coimbatore*, experiments in teak regeneration were carried out; in the former district the growth except teak seed bearers being removed and the ground worked up on one acre, on a second acre the growth was clean felled and teak seed dibbled in, in a third acre the area was clean felled: in the latter district five plots aggregating two acres were clean felled and dibbled with teak seed at stake to three feet intervals and weeded, the cost amounting to Rs. 141: a cheaper method of regeneration is now being looked for. In *North Coimbatore* a plot was laid out in Minchuguli to test the effect of removing grass from areas in which rosewood and *Pterocarpus* seedlings and root suckers were coming up. Another area of 80 acres about two miles south of Girgagandi in *Hardwickia binata* area was put under special fire protection to see the result on regeneration. Mr. Nelson's bamboo pulp scheme in *Malabar* is held in abeyance on account of the war and because of the flowering of the bamboos. *South Coimbatore* reports that the clearing of grass round trees to induce regeneration is a failure, not a single seedling being available for an expenditure of Rs. 569. This is a work prescribed in the working-plan but the cost emphasises the need for learning to walk before attempting to run. Bark of *Acacia dealbata* and leaves of *Frenella rhomboidea* have been supplied to two firms from the *Nilgiris* for experiments in tanning and the extraction of oil.

5. Exploitation.

(a) *System of management.*

Northern Circle.

90. The total area for which regular working-plans were sanctioned was 2,423 square miles and the area dealt with under different sylvicultural systems are detailed below:—

Sylvicultural system.	Area in square miles.	Per centage.
(1) Clear felling...	147	6·07
(2) Selection felling	52	2·14
(3) Simple coppice felling	83	3·43
(4) Coppice with standard felling	315	13·00
(5) Improvement felling (mostly selection)	469	19·35
(6) Unworked areas	1,357	56·01
Total ...	2,423	100·00

(i) Major Forest Produce.

(1) *Clear or Regeneration Fellings.*

91. Six coupes in *Ganjām*, two compartments in *Gōdāvari*, *Lower*, 2½ compartments and 10 coupes in *Kistna*, the new boundary lines and the fire lines in *Kurnool*, *South*, were felled under this system.

(2) *Selection Fellings.*

92. *Ganjām.*—Twenty sal trees of over 7½ feet in girth were extracted departmentally from Rambha reserve under the working-plan. The indent system for the disposal of the valuable timber species from unreserves has been in force for eight years. The demand under this system decreased during the year under report as the rate for sal was raised from 6 to 12 annas per cubic foot. *Vizagapatam*—Wind-fallen and top-broken sal timber from two reserves in Palakonda range was brought down to depots. *Kurnool*, *East*—Five hundred palmyras from Badvid reserve, dying mis-shapen and rotten trees of other species in Gudem, Dornal, Markapur and Cumbum ranges were selected and felled. *Kurnool*, *South.*—One hundred and thirty mature palmyra trees were removed from Owk extension reserve. *Kurnool*, *West*—Selection felling combined with improvement fellings was carried out in the Gundlabrahmeswaram working circle. Dead timber from hill forests was also removed under this system.

(3) *Regular Thinnings.*

93. In *Gōdāvari*, *Lower*, a second thinning of compartment VI of Kandikuppa plantation was carried out during the year.

(4) *Improvement Fellings.*

94. In *Ganjām* 1,553 dead sal trees from Gogoda reserve, 1,599 sal trees from Ambazora reserve, 168 sal trees from Chendragiri reserve and 812 dead sal trees from Kriamba C block were sold standing to contractors. In *Gōdāvari*, *Lower*, besides 38 acres of compartment III of Kandikuppa plantation which were cleared, in eight reserves the right to remove deadwood was leased out to contractors with a view to improving the growing stock. In *Kurnool*, *East*, only dead trees and tamarind trees which had passed the fruit-bearing age in a coupe were sold to a contractor ; Chenchus were employed to fell dead trees to supply fuel to Markapur town and for making spokes and felloes from dead teak and Pterocarpus trees. In *Kurnool*, *South*, two coupes were worked under this system. In Chelama range the improvement fellings were found to be a form of intensive exploitative operation devoid of ordinary sylvicultural safeguards. This grave error has now been rectified. In *Kurnool*, *West*, all the timber coupes in the Nallamalais, Terai, one coupe in South Dhone range and one in Gadidamadugu reserve were similarly treated.

(5) *Coppice with standards.*

95. Three fuel coupes in Gundlabrahmeswaram, eleven fuel coupes in *Vizagapatam*, five fuel coupes in *Gōdāvari, Lower*, one coupe in *Kistna*, nine fuel coupes in *Kurnool, South*, and two coupes in *Kurnool, West*, were exploited. During this year the District Forest Officer, *Vizagapatam*, introduced into his division the practice of selling the coupes standing.

(6) *Simple Coppice.*

96. In *Gōdāvari, Lower*, four fuel coupes in Rajahmundry range and three in Polavaram and one in Gokavaram ranges were treated under this system. I am inclined to think that this method is unsuitable for hill sides and probably also for the plains unless the hot weather is very short or the stock is possessed of a high degree of growing energy.

(7) *Unregulated Fellings.*

97. In *Vizagapatam* permits for timber and fuel from unreserves were issued. In *Gōdāvari, Upper*, the right of cutting and removal of timber was not leased out. In *Gōdāvari, Lower*, unregulated fellings were confined to Rampa and to certain unreserves under the control of the Forest Department; the mada fuel from the Hope island was removed on permits issued by the Marine Department; the only unregulated fellings in reserved forests was in the Coringa reserve where the Public Works Department was permitted to remove mada poles and brushwood for river conservancy work. The Hope island which contains valuable forest is at present under the control of the Marine Department in payment of a nominal sum of Rs. 100 per annum. Apart from the loss of revenue over Rs. 9,000 per annum the forest is deteriorating from want of supervision; the Collector considers that its transfer to the Forest Department is advisable. In *Kurnool, West*, permits were granted only for palmyra trees.

98. The total area under working-plans was 1,866 square miles and the various sylvicultural systems in force are shown below :— *Central Circle.*

Sylvicultural system.	Area in square miles.	Percentage.
(1) Method of clear felling by compartment	7	·37
(2) Simple coppice	...	...
(3) Coppice with standards	729	39·06
(4) Method of improvement fellings	304	16·29
(5) Area closed to felling or worked under no definite sylvicultural system...	826	44·28
Total ...	1,866	100·00

99. The total area of forests under working-plans is 2,816 square miles. The various sylvicultural systems in force over this are shown in the following table :— *Southern Circle.*

Sylvicultural system.	Area in square miles.	Percentage.
(1) Clear fellings	1	0·04
(2) Simple coppice...	180	6·39
(3) Selection fellings	251	8·91
(4) Coppice with standards	1,204	42·75
(5) Improvement fellings	431	15·31
(6) Pastoral method	36	1·28
(7) Forest for which working-plans have been prepared but not subjected to any definite working	713	25·32
Total ...	2,816	100·00

(1) *Clear or Regeneration Fellings* and (2) *Simple Coppice.*

100. Two coupes of 620 acres of casuarina in *South Arcot* were clear felled as also ten tank-beds in Tinnevelly. Simple coppice is being gradually introduced into *North* and *South Salem* in places where the standards available are so poor as not to demand consideration.

(3) *Selection Fellings.*

101. The area shown under this head relates chiefly to bamboos.

(4) and (5) *Improvement and Coppice Fellings.*

102. *Improvement fellings.*—The great majority of the area shown under this head relates to sandal fellings.

Coppice with standards.—The following coupes were felled under coppice with standards. 29 fuel coupes of 2,486 acres in *North Vellore*, 38 fuel coupes aggregating 2,190 acres in *South Vellore*, 51 coupes of 3,784 acres in *South Arcot*, 8 coupes of 1,852 acres in *North Salem*, 26 fuel coupes in *South Salem*, 22 coupes of 1,525 acres in *Trichinopoly*, 42 coupes of 2,765 acres in *Madura* and 14 ghat forest coupes and 5 plain forest coupes in *Tinnevelly*.

(6) *Unregulated Fellings.*

103. In *North* and *South Vellore*, *South Arcot* and *South Salem* unregulated fellings under the permit system were confined to unreserves. In the reserves of Palni range of Madura, selected and marked timber trees were sold for domestic requirements on payment of seigniorage fees.

Western Circle.

104. The various sylvicultural systems in force over the areas under sanctioned working-plans are summarised below :—

Sylvicultural system.	Area in square miles.	Percentage of total area under each sylvicultural system.
Method of clear fellings by compartments	31	1·70
Selection method	313	17·16
Simple coppice	4	·22
Coppice with standards	312	17·10
Method of improvement fellings	134	7·35
Forests for which working-plans have been prepared but not subjected to any definite system of working ...	1,030	56·47
Total ...	1,824	100

(1) *Clear or Regeneration Fellings.*

105. In *South Malabar*, 27·71 acres in New Amarampalam reserve were clear felled for the formation of teak plantation; the amount realized was Rs. 809.

(2) *Selection Fellings.*

106. *Mangalore divisions.*—Selection fellings were carried out over 40 acres in coupe I of Madibare timber working circle and in Shibaje coupe VIII. Overmature trees in compartment 1 of Jalsur east block were sold standing and the contractor felled 122 trees which yielded 7,847 cubic feet. *North Malabar*—Three hundred and six acres in coupe XIX of Begur and 140 acres in coupe II of Chedleth were felled. The *Nilgiris*—Unsound and dead sandal trees which yielded 375 quarters were extracted from compartment 2 of Sigur range. *Kollegal*—Spiked and dead sandal trees were removed from coupes I to IV and VII of Madeswaranmalai and coupes I and V of Bailur and from certain other areas ; the total yield was 79 tons. *North Coimbatore*—Eight thousand four hundred and seventy-nine sandal trees which yielded 154 tons were felled in three coupes covering 12,672 acres. *South Coimbatore*—The balance of coupe VIII of Punachi working circle which was left over last year and parts of coupes IX and X were felled.

(3) *Simple Coppice.*

107. Thirty-four acres of Eucalyptus and Acacia plantations in the *Nilgiris*.

(4) *Coppice with standards.*

108. *Mangalore divisions.*—Nineteen fuel coupes covering about 485 acres in Coondapur and Sankaranarayana ranges, 5 acres in Narimogar coupe II, and portions of two coupes in Kasaragod range were coppiced. Ten acres in Udipi were cut for supplying fuel to 33 sandalwood oil stills. Portions of two coupes covering 198

acres in Kollegal, eleven coupes (882 acres) in *North Coimbatore*, eighteen coupes (1,254 acres) in *Central Coimbatore* and nine coupes of 375 acres in *South Coimbatore* were felled for supply of fuel and also five coupes in *North Coimbatore* for supply of drag poles and agricultural implements.

(5) *Improvement Fellings.*

109. *Mangalore North.*—Coupe VI of Pilarkan (50) acres was worked for *fuel* (*sic*); the yield was 4,320 cubic feet. (It is not explained how this was an improvement felling.) *South Malabar*—Thinnings were carried out in the teak plantations and 54,133 trees and saplings were extracted. Seven thousand and one teak saplings damaged by elephants in the Karimpoya plantations were cut back. The *Nilgiris*—Nine hundred and ninety-two acres in compartment 3 of block I of Mudumalai working circle was worked over; the yield was 37,833 cubic feet of teak and 2,871 cubic feet of other species as well as 710 teak poles. Compartment 1 of Mutinad plantation (7·27 acres) and *Cryptomeria japonica* in compartment 2 of block I of Cairn Hill working circle were thinned; the yield in the former was used for the manufacture of charcoal. *South Coimbatore*—Improvement fellings were made in coupes VII, IX and X of Punachi working circle—area not reported.

(6) *Unregulated Fellings.*

110. *Mangalore divisions.*—Firewood required for working 95 cinnamon oil stills and for boiling catechu was removed from unreserved lands. Timber was also removed from unreserved lands on payment of seigniorage and dead and wind-blown trees were sold in a few instances from reserved forests. *North Malabar*—One hundred and six rosewood trees were felled from Chedleth and Begur coupes for a special supply. *South Malabar*—Twenty-nine irul (*Xylia*) trees were removed from Arimbrakutta reserve on payment of a fixed value. The *Nilgiris*—Small timber and fuel were as usual removed on permits. *North Coimbatore*—Twenty-six thousand one hundred and eleven cubic feet of timber and 22,722 cubic feet of fuel were removed on permits from unreserved lands.

(ii) Minor Forest Produce.

(1) *Bamboos.*

111. Almost throughout the circle the bamboo coupes in reserved forests were sold to contractors. ***Northern Circle.***

(2) *Miscellaneous Produce.*

112. Seigniorage was collected on gravel, earth and other minerals; the usufruct of mango, tamarind and other fruit trees was sold in auction; the collection of *cassia* and other barks, honey, wax, myrabolams, hides, horns, etc., was leased out. In *Ganjām* fruit trees were generally left to the free use of Khonds; *Mallotus* powder was collected and sold at a small profit; in *Vizagapatam* seigniorage was collected in Golgonda taluk at the weekly markets from purchasers of produce collected by hillmen; in *Gōdāvari*, *Lower*, the right to cut *Cassia auriculata* bark in Rajahmundry was not sold for want of proper bids and permits were as usual issued for the removal of minor produce from Rampa and the agencies of Polavaram and Yellavaram; in *Kistna* one quarry was leased out to the Local Fund Department and another to a contractor; in *Kurnool*, *East* and *West*, tamarind, soapnuts, myrabolams, nux-vomica seeds, wax, horns and honey were collected through Chenchus and sold; in the latter division sold in auction and in the former sold to a merchant who agreed to buy all the minor produce for 12 months at fixed rates; *cassia* bark which used to be collected by contractors in past years has also been reserved in part in the former division providing work for Chenchus, and the quantity so collected was sold departmentally to a contractor.

(3) *Extraction of Fodder.*

113. In *Gōdāvari*, *Lower*, the right to cut and remove thatch and fodder grass from the Coringa and Kandikuppa reserves and in *Kistna* such right for fodder grass and mangrove leaves were leased out. In *Kurnool*, *South*, a certain quantity of

fodder grass was removed from part of Owk and Giddalore ranges as the quantity available outside was insufficient owing to the large number of cattle maintained. In *Kurnool, West*, fodder was collected departmentally for Government bullocks.

(4) *Hay-making.*

114. No operations were undertaken except in *Kurnool, South*, where fodder grass was collected for feeding Government bullocks in the hot weather.

(5) *Grazing.*

115. The permit system was in force in all the divisions. The revenue derived was Rs. 1,19,005 against Rs. 1,20,040 in the previous year. The decrease is attributable in *Ganjām* to two reserves being under process of transfer to panchayat management, and to eight reserves having been disafforested and in *Kurnool, West*, partly to the new system of collecting fees for foreign cattle in pentas, under which graziers have to pay for the whole year instead of purchasing quarterly permits. The Collector of Kurnool remarks in this connection :—

" Proposals were submitted to the Board for enhancing grazing fees, including those for 'penta' cattle. The matter, however, is in abeyance, pending the introduction of the scheme for 'forest villages' recently started. The scheme implies (*a*) a re-examination of all the areas open to grazing, (*b*) a fresh computation of the number of cattle to be provided for, (*c*) a re-allotment of grazing area taking into consideration not merely acreage, but the physical characteristics of the ground, (*d*) an enhancement of fees, with privileged rates for cattle of 'forest villages,' the idea being to obtain a 'lever' by which to move their inhabitants to co-operation. All this will take at least a couple of years, and it is worth considering whether the indefinite postponement of the raising of the rates is desirable."

(1) *Miscellaneous Produce.*

Central Circle.

116. Minor produce was leased out to contractors as usual in all the districts except in the Srīharikōta range of *Nellore* district where for local reasons the produce was continued to be collected and sold departmentally. The increase in the price of manure leaf to Rs. 1–8–0 per cart load in *Chingleput* had the effect of reducing the demand.

Permits continued to be issued for stone, earth and road materials.

(2) *Extraction of Fodder.*

117. The Military Grass Farm Department continued to hold leases in *Bellary, Anantapur* and *East Cuddapah* at Rs. 2 per ton of made-hay. In *Bellary* Mr. Howes cut and removed 450 tons of hay from the lease of closed compartments and Mr. Sanders, a private contractor, was allowed to remove fodder from certain reserves for Rs. 200.

(3) *Free removal of Grass.*

118. Free removal of grass was continued to be allowed except the leased areas in all the districts except *Chingleput* where it is reported there was no demand. The concession was largely availed of in *Guntūr* as all the closed areas were thrown open for free removal by the public as a result of the enhancement of grazing fees during the year. In *West Cuddapah* the withdrawal of the concession was under consideration as some of the villagers adjoining Lankamalais and Nallamalais failed to help in putting out fires.

(4) *Hay-making.*

119. No departmental operation for manufacture of hay was conducted during the year.

(5) *Grazing.*

120. The revenue realized during the year was Rs. 3,18,777 against Rs. 2,99,154 of last year. The increase was chiefly in *Guntūr* and *Nellore* due to collection of grazing fees at enhanced rates sanctioned during the year in the former district and to the extension of the kancha system in the latter district except in Kanigiri and Srīharikōta ranges. Increase in *Chittoor* is small and needs no remark. The decrease occurred in the other districts which was chiefly due to the reduction in the

number of goats in *Bellary*, in *Anantapur* to closure of some reserves, in *East Cuddapah* to non-issue of penning permits for certain reserves, and in *Chingleput* to closure of portions of reserves for experimental kanchas and closure of felled coupes and assignment of certain reserves for panchayats.

(1) *Miscellaneous Produce.*

121. Minor forest produce was as usual leased out. Permits were issued for manure leaves in *North* and *South Vellore*, *South Arcot* and *Trichinopoly*. In *South Vellore* this practice is to stop next year and it would be well if a similar reform were introduced into other districts. Four tons of Divi Divi pods were collected departmentally in *North Vellore* and sold for Rs. 156. The Divi Divi pods collected in *Trichinopoly* were sold at Rs. 32 per ton The low prices obtained are surprising considering the demand for tans. *Southern Circle.*

(2) *Extraction of Fodder.*

122. Free removal of grass was allowed in *North* and *South Vellore* and *South Arcot*. In *North Salem* the grass in five closed coupes and two specially protected blocks sold for Rs. 196. In *Madura* removal of grass was allowed on permits. In *Tinnevelly* grass was included in the minor forest produce contract.

(3) *Hay-making.*

123. In *North Vellore* the Banavaram, Kylasagiri and Panamadangi reserves and the Palar plantations were leased out to the Military department on payment of royalty of Rs. 2 per ton of hay removed, Rs. 774 were realised during the year against Rs. 303 in the previous year. It is obvious that this contract is capable of expansion.

(4) *Grazing.*

124. The revenue derived from grazing was Rs. 1,69,467 against Rs. 1,92,251 in the previous year — a decrease of Rs. 22,784 or 11·8 per cent. The decrease is general and is to be partly attributed to the season and partly to the change in the grazing system.

In *North Vellore* panchayat fees were not collected, whilst in *Trichinopoly* the Padugais were handed over to the Public Works Department.

With the transfer of grazing reserves to panchayats a decrease in the gross receipts must be expected but less establishment will be required.

(1) *Bamboos.*

125. Three coupes covering 3,043 acres in *Mangalore North*, Nerankimale coupe II (area not reported) in *Mangalore South*, ten coupes of 20,970 acres in *North Coimbatore*, four coupes of 664 acres in *Central Coimbatore* and six blocks (area not reported) in *South Coimbatore* were leased out. Removals on permits were allowed in *Mangalore North*, *Malabar North*, the *Nilgiris*, *Kollegal* and *South Coimbatore* to meet local demands and from the natural forests of *South Malabar* for floating timber purchased by contractors. Bamboos were extracted departmentally in *Mangalore North* and *South Malabar* for rafting and floating timber. *Western Circle.*

(2) *Miscellaneous Produce.*

126. Minor produce of importance was generally leased out on lump sum contracts. The manufacture of catechu in *Mangalore North*, collection of all produce in Mudumalai and Tunacadavu ranges in the *Nilgiris* and *South Coimbatore* respectively and of gallnuts, sambhur and deer horns, honey, etc., from reserved forests in *Kollegal* were carried out departmentally.

(3) *Extraction of Fodder Grass.*

127. Fodder grass was removed on permits in the four divisions of *Coimbatore*, on the plateau in the *Nilgiris* and in Beypore tope in *South Malabar*. The concession of free removal of grass from reserved forests was not required in *Malabar* as the demand was met from elsewhere and was not permitted in *Coimbatores* as there was no necessity. Free removal of thatching grass was allowed in *Mangalore* divisions and in certain parts of the *Nilgiris*.

(4) *Hay-making.*

128. There were no operations during the year.

(5) *Grazing.*

129. Grazing was as usual regulated by issue of permits except in *South Malabar* where the forests were closed to grazing and in the areas handed over to the management of forest panchayats. Goat browzing was entirely prohibited. The incidence of grazing was generally heavy. A matter of considerable importance was the issue of orders in G.O. No. 298, Revenue, dated 10th February 1916, to introduce a system of preferential grazing for villages which have contributed land for the formation of forest reserves. Such villagers will have in the first instance to pay the same grazing fee as other people but in return for assistance in the prevention of forest offences and fires a substantial rebate will be given at the end of the year. It is feared that the census of "necessary" cattle which is entailed will cause delay in the introduction of the scheme. The number of cattle licensed to grazing on payment was 362,917 against 399,437 in the previous year.

(*b*) *Agency of Exploitation.*

(i) DEPARTMENTAL AGENCY.

Northern Circle.

130. Forms 76 and 77 show separately the different classes of produce collected, and Form 78 the stock disposed of and the balance remaining. The total quantity of timber and fuel and the value of bamboos and minor produce extracted departmentally were 13·73, 3·09 and 2·70 of their respective total outturn through all agencies. The total value of the disposals was Rs. 82,271 against Rs. 1,13,275 in the previous year. The fall is attributed to leaving the removals to a greater extent to contractors. The quantity of timber, fuel and the number of bamboos extracted was 271,447 cubic feet, 648,750 cubic feet and 259,837 against 250,028 cubic feet, 868,935 cubic feet, and 351,783, respectively, in the previous year. The increase in timber occurred chiefly in *Ganjām* owing to the large quantity resulting from cutting coupe lines and the 60 feet wide boundary lines in Pondakhol range. In *Gōdāvari Lower*, to the large quantity of drift wood collected. The decrease under fuel and bamboos is due to extension of the contract system. Minor produce collected was 38,199 maunds against 32,103 maunds in the previous year; the increase is due to the better harvest.

Central Circle.

131. The increase in *timber* is due to large extraction for departmental buildings chiefly in *East Cuddapah*. The decrease under *fuel* and *bamboos* is chiefly due to replacing the departmental agency by the contract system and to less quantity exploited for departmental purposes. Under *minor produce* the fall is due to less quantity of nux-vomica extracted in *Nellore.*

Southern Circle.

132. The work done by departmental agency is chiefly confined to the extraction of sandalwood and represents only 1·7 per cent of the total outturn.

Western Circle.

133. *Major produce—Mangalore North.*—Felling a portion of Madibare timber coupe and improvement fellings. *Mangalore South.*—Felling two hundred trees in Shibaje coupe VIII and felling fuel in a portion of Muliar coupe. *North Malabar.*—Felling of 116,765 cubic feet of timber in three sub-coupes (306 acres) of Begur coupe XIX and in one sub-coupe (140 acres) of Chedleth coupe II. *South Malabar.*—Thinnings in teak plantations and rafting and floating logs and saplings to depot. Top ends of teak saplings were collected on a small scale for supply of fuel. *The Nilgiris.*—Timber in Mudumalai, sandalwood in Sigur and fuel in Ootacamund and Coonoor ranges were felled and fuel was also carted. *Kollegal* and *North Coimbatore.*—Small timber and agricultural implements were felled and sandalwood extracted; also felling fuel in the former division. In *Central Coimbatore* the contractors faults in some fuel coupes were rectified. *South Coimbatore.*—Selection and improvement fellings in coupes VII to X of Punachi working circle and the transport of timber from the Tekadi leased forests to depots.

Minor produce.— The details are mentioned in paragraphs 126 and 127 supra.

134. *Disposal of produce at the edge of the forests.*—Fuel was sold in some of the coupes in *Mangalore North.* Twenty-five chowks of fuel obtained from the improvement fellings in Pilarkan coupe VI were sold at the edge of the forests. The attempt

to sell small logs and fuel at the edge of Muliar coupe I in *Mangalore South* failed owing to the inattention of the Ranger in charge in stacking them properly. In *South Malabar*, the thinnings in Edacode plantations were sold at river-side depots on the boundaries of the plantations. In *North Coimbatore*, small timber and agricultural implements were retailed in the forest depots. The timber felled in Punachi coupes VII and VIII in *South Coimbatore* and fuel in *Kollegal* were sold in the forests.

(ii) Purchasers.

135. There has been decrease in the removal of timber and fuel and increase in that of bamboos and minor produce. The decrease under timber is due to want of demand from the Public Works Department and to a smaller sale of sal in Ganjām owing to increase in the sale rate sanctioned. The decrease under fuel is due to the large number of fuel plantations sold in the previous year. The increase under bamboos is due to more extensive removals by contractors and that under minor produce to the more favourable season. *Northern Circle.*

136. (*a*) *Timber.*—The decrease is due to less number of darkhast applications and less demand for palmyras owing to enhanced seigniorage fees in *Nellore.* *Central Circle.*

(*b*) *Fuel.*—The decrease is reported to be due to less quantity removed from unreserved lands during the year.

(*c*) *Bamboos.*—The increase is due to better growth of bamboos in *West Cuddapah* and to extension of contract system in *Chittoor.*

Minor produce including grazing.—The rise is due to large collection of tangedu kists in *Bellary*, *Anantapur* and *East Cuddapah* and to extension of kancha system and to rise in the demand for mica in *Nellore.*

137. *Timber.*—122,528 cubic feet due to fall in the collection of tree value from lands assigned on darkhast in all districts except *North Salem* and *Madura.* *Southern Circle.*

Fuel.—538,439 cubic feet. The decrease was due to a less number of coupes having been sold in *North* and *South Vellore* and *North* and *South Salem.* The transfer of padugais to the Public Works Department in Trichinopoly also contributed to the decrease.

Bamboos+Rs. 8,903. The increase is due to a matter of adjustment of lease amounts and not to any real increase in the outturn of bamboos.

Grazing and Minor Produce.—Rs. 5,336. The districts concerned chiefly with this decrease are *South Vellore* and *South Arcot.* In the former the avaram sales were not good which is surprising when tans are in such demand. The failure of the sales of mordants in *South Arcot* is only natural.

138. One timber and twenty-five fuel coupes in *Mangalore* divisions, 424 acres in Chedleth timber coupe II in *North Malabar*, and 1,958 cubic feet of timber in reserved forests in the *Nilgiris* and all the fuel coupes in *North*, *Central* and *South Coimbatore* were sold standing. Also the unregulated fellings, the extraction of bamboo and the collection of minor produce mentioned in paragraphs 125, 126 and 127 supra. *Western Circle.*

(iii) and (iv) Right and Privilege-holders and Free Grantees.

139. The following statement shows the estimated quantity and value of produce removed under the above heads :— *Northern Circle.*

—	Timber.		Fuel.		Bamboos.	Minor produce.	Grazing.	Total.	Value in the previous year.
	Cubic feet.	Value.	Cubic feet.	Value.	Value.	Value.	Value.	Value.	
		RS.		RS.	RS.	RS.	RS.	RS.	RS.
Right and privilege-holders.	167,198	4,295	582,195	5,868	407	23,071	798	34,439	35,785
Free grantees	47,520	3,487	3,462	54	278	119	..	3,938	7,195

140. The concession for free removal of grass appears in paragraph 119 supra. In *West Cuddapah* permits were issued to Guvvalcheruvu villagers for 159 cows and 200 sheep at As. 1–6, and 9 pies respectively, for grazing in Palakondas. In *East* *Central Circle.*

Cuddapah, free grazing of 738 cows and bulls of the ryots of Settigunta and its hamlets was allowed according to the terms of the settlement of Settigunta reserve. In *Nellore*, the concession plots granted in three reserves for felling by the Kathiras in case of necessity was withdrawn.

The statement appended below shows the particulars of free grants made during the year which were chiefly for rebuilding houses destroyed by fire. In *Bellary*, certain grants were made for plague sheds and in *Nellore* palmyra trees and leaves were granted for the construction of huts by Yerukula settlement.—

—	Timber.		Fuel.		Bamboos		Grass and grazing.	Other minor produce.	Total.
	Cubic feet.	Value.	Cubic feet.	Value.	Number.	Value.	Value.	Value.	Value.
		RS.				RS.	RS.	RS.	RS.
Right-holders	..	..	..	..	..	..	138	..	138
Free-grantees .. .	47,728	5,430	..	..	15,288	167	..	313	5,910
Total ..	47,728	5,430	..	..	15,288	167	138	313	6,048

Southern Circle.

141. The privileges allowed were as usual for grazing at reduced rates in *North* and *South Vellore*.

The estimated value of free grants was Rs. 8,608 against Rs. 13,568 in the previous year. The decrease is due chiefly to cessation of supply of korambu materials to the Public Works Department in Trichinopoly district consequent on the transfer of padugai forests to that department.

The quantity and estimated value of produce removed by right-holders and free grantees are shown in the following abstract :—

—	Timber.		Fuel.		Bamboos.	Grass and grazing.	Other minor produce.	Total value.
	Cubic feet.	Value.	Cubic feet.	Value	Value.	Value	Value.	
		RS.		RS.	RS.	RS.	RS.	RS.
Right-holders	..	..	..	..	..	..	1,115	1,115
Free grantees	18,824	2,155	2,879	180	454	5,722	97	8,608
Grants at reduced rates ..	..	..	..	..	..	1,995	..	1,995
Total ..	18,824	2,155	2,879	180	454	7,717	1,212	11,718

Western Circle.

142. The following statement shows the quantity of produce removed by right-holders and free grantees and its estimated value :—

—	Timber.		Fuel.		Bamboos.		Grass and grazing.	Other minor produce.	Total.
	Cubic feet.	Value.	Cubic feet.	Value.	Number.	Value.	Value.	Value.	Value.
		RS.		RS.		RS.	RS.	RS.	RS.
Right-holders	15,450	6,180	..	..	..	..	..	..	6,180
Free-grantees	4,385	777	580	9	4,820	88	870	45	1,789
Total ..	19,835	6,957	580	9	4 820	88	870	45	7,969

The value of produce enjoyed by right-holders has decreased from Rs. 15,250 to Rs. 6,180. These removals are entirely from the *Mangalore* divisions and the decrease has not been explained. Free grants were as usual made in *Mangalore North* chiefly for the construction of and repairs to temples, churches and religious institutions. The grants made elsewhere were for works of public utility such as repairs to culverts and construction of foot bridges and for re-building houses destroyed by fire. The Badagas in the *Nilgiris* continued to collect fuel required by them on payment of Re. 1 per annum per house. Check over this removal is indifferent due to lack of

establishment. There are 2,500 households of which 1,778 took permits; the average value of the fuel removed by Badagas during a year is estimated to be Rs. 20,000 which amounts to a free grant of about Rs. 18,000. This system results in damage to the sholas because though in theory deadwood only is removed, actually much "dead" wood is created. Todas were allowed to graze their buffalœs in reserved forests free and the estimated value of such grazing is reported to be Rs. 779.

143. (c) *Outturn and sources of Forest Produce.* *Northern Circle.*

Agency.	Timber in cubic feet including sandalwood.		Fuel in cubic feet.		Bamboos in value in rupees.		Minor produce (including grass and grazing) gross value in rupees.	
	1914-15.	1915-16.	1914-15.	1915-16.	1914-15.	1915-16.	1914-15.	1915-16.
By Government	250,028	271,447	868,935	648,750	6,550	4,523	12,844	8,314
By purchasers (including confiscation).	1,288,226	906,369	(a)4,459,851	(a)4,074,398	93,180	1,41,664	2,13,695	2,74,819
By right-holders	184,136	167,198	582,195	582,195	552	407	24,649	23,869
By free grantees	86,853	47,520	..	3,462	671	278	2,836	119
Total ..	1,809,243	1,392,534	5,910,981	5,308,805	1,00,953	1,46,882	2,54,024	3,07,121

The variations have been explained where necessary. The rates for grazing fees levied in the several divisions are shown in form 74. The number of animals licensed to grazing on permits was 575,620 against 866,732 in the previous year.

144. The following statement gives the total outturn compared with the previous year :— *Central Circle.*

Agency of exploitation.	Timber in cubic feet including sandalwood.		Fuel in cubic feet.		Bamboos in number.		Minor produce (including grass and grazing) gross value in rupees.	
	1914-15.	1915-16.	1914-15.	1915-16	1914-15.	1915-16.	1914-15.	1915-16.
By Government Agency ..	11,071	19,816	36,063	24,321	12,200	1,773	14,701	8,487
By purchasers (including confiscation).	1,065,163	930,733	6,584,517	6,388,326	1,833,386	2,578,071	6,31,218	7,63,001
By right-holders ..	..	..	..	..	..	..	151	138
By free grantees ..	38,543	47,728	..	..	17,127	15,288	1,320	313
Total ..	1,114,777	998,277	6,620,580	6,412,647	1,862,713	2,595,132	6,47,390	7,71,939

Departmental operations have entirely ceased but small quantities of timber and bamboos were extracted for departmental buildings and fuel was obtained in clearing coupe and boundary lines.

145. The total outturn is given in the following statement :— *Southern Circle.*

Agency of exploitation.	Timber including sandalwood in cubic feet.		Fuel in cubic feet.		Bamboos value.		Minor produce including grass and grazing value.	
	1914-15.	1915-16.	1914-15.	1915-16.	1914-15.	1915-16.	1914-15.	1915-16.
					RS.	RS.	RS.	RS.
By Government Agency ..	19,338	17,281	62,294	70,432	201	289	531	533
By purchasers	920,866	798,338	4,777,552	4,239,113	1,01,789	1,10,692	3,82,215	3,76,879
By right-holders	..	..	..	..	..	..	2,405	1,115
By free grantees	90,493	18,824	3,984	2,879	303	454	5,267	5,819
Total ..	1,030,697	834,443	4,843,830	4,312,424	1,02,293	1,11,435	3,90,118	3,84,346

The variations have already been explained. The rates for grazing fees levied in the several districts are shown in form 74. The number of animals licensed on payment was 1,059,589 against 1,267,224 in the previous year.

(a) Corrected in the Board's office.

Western Circle.

146. The outturn of produce collected by different agencies is compared with that of the previous year in the following abstract :—

Agency of exploitation.	Timber including sandalwood in cubic feet.		Fuel in cubic feet.		Bamboos in number.		Minor produce including grass and grazing in rupees.	
	1914–15.	1915–16.	1914–15.	1915–16.	1914–15.	1915–16.	1914–15.	1915–16.
By Government Agency.	437,121	308,807	640,149	621,608	98,757	111,911	24,151	20,518
By purchasers ..	468,886	379,143	3,937,306	3,218,887	7,303,240	5,613,348	1,47,014	1,37,368
By right-holders ..	36,175	15,450	..	..	..	..	780	..
By free grantees ..	3,761	4,385	340	580	8,920	4,820	270	915
Total ..	945,943	707,785	4,577,795	3,841,075	7,410,917	5,730,079	1,72,215	1,58,801

By Departmental agency—Major produce.—The decrease under "timber" was chiefly in *South Malabar* and *South Coimbatore* due in the former to the smaller yields from the thinnings made in the plantations and from wind blown trees, and in the latter to the stoppage of felling in the Tekadi leased forests pending transport of a large stock of timber remaining in the forests, while that under "fuel" was due generally to the extension of contract system and to stoppage of fuel fellings in Bargur range in *North Coimbatore* for want of demand. *Minor produce.*—The increase under "bamboos" was due to a larger number extracted in *South Malabar* for rafting timber. *Other produce.*—The total outturn was 55 tons against 96 tons in the previous year; the decrease was mainly in *North Coimbatore* due to transfer of collection to private agency.

By purchasers.—The outturn under this head is generally unreliable partly owing to inaccurate yield figures given by coupe purchasers. The decrease under "*Major produce*" was due partly to a general fall in the number of applications for darkhast lands and in the removals from unreserved lands; the revenue officers have not explained the variations under these heads. The non-sale of Chedleth timber coupes in *North Malabar* for want of demand and a smaller outturn of timber from the fuel coupes in *South Coimbatore* accounted to some extent the fall under "*timber*". *Minor produce.*—The outturn of "bamboos" fell by over two millions in *North Coimbatore*; there were small increases in *Central* and *South Coimbatore* and in *Kollegal.* The decrease under other produce was mainly in *South Canara* due to lower prices realized for leases.

CHAPTER III.—FINANCIAL RESULTS.

Northern Circle.

147. The financial results compared with those of last year and the average of the five preceding years show a net increase of Rs. 33,860 and Rs. 1,28,163 respectively.

Items.	1915–16.	1914–15.	Average of preceding five years.
	RS.	RS.	RS.
Revenue	7,44,905	7,70,393	7,75,649
Expenditure "A. Conservancy and Works" inclusive of "Refunds."	2,90,501	3,33,624	4,54,251
Expenditure "B. Establishments"	3,81,641	3,97,866	3,76,798
Total expenditure ..	6,72,142	7,31,490	8,31,049
Net results ..	+ 72,763	+ 38,903	— 55,400

The gross receipts were less than those of the previous year and the average by Rs. 25,488 and Rs. 30,744 respectively.

The gross revenue and the net revenue of *Gōdāvari Lower*, are the highest on record since the division was constituted.

The expenditure under "A. Conservancy and Works" including refunds is less than that of the previous year and the average by Rs. 43,123 and Rs. 1,63,750

respectively. The net results show an increase of Rs. 72,763. This is chiefly due to the change of system from departmental to contract working and to the curtailment of expenditure on capital works on account of the war.

About 38 per cent of the expenditure was devoted to the upkeep and improvement of the forests and 62 per cent to exploitation, etc.

The outstanding revenue at the commencement of the year was Rs. 77,846 and the value of the sales amounted to Rs. 7,74,066. Out of the total of Rs. 8,51,912, Rs. 7,44,905 were collected, leaving an outstanding balance of Rs. 1,07,007.

RECEIPTS.

(i) *By Departmental Agency.*

Timber. —Rs. 14,302 due to extraction of a smaller quantity of timber in *Ganjām*, to non-realisation of revenue from timber in the Bointi unreserves in *Vizagapatam* and to the anticipated number of coupes for improvement fellings and thinnings not having been worked in *Kurnool South.*

Fuel. — Rs. 12,549 due to diminution in the yield of the Kandikuppa plantation in *Gōdāvari Lower* to no casuarina plantations in the *Kistna* division having been sold during the year and to a smaller extraction of fuel in *Kurnool West* as the Sim's line which was widened during the year contained less fuel than was anticipated.

Bamboos. — Rs. 1,966 due to leasing of coupes to contractors.

Minor produce. — Rs. 2,187 due to non-collection of Kamala powder and *Bassia latifolia* in *Ganjām* owing to difficulty experienced in disposing of the previous year's stock.

(ii) *By Purchasers.*

Timber. — Rs. 31,655 due to fall of revenue under indent system in *Ganjām*, to reduction in demand from Public Works Department in *Gōdāvari Upper* and to restrictions placed upon removals of timber from Rampa in *Gōdāvari Lower.*

Fuel. — Rs. 47,685 due to the smaller number of coupes sold and to a less demand for permits owing to disafforestation of certain reserves in *Ganjām*, to less demand from Public Works Department for fuel for brick and lime burning in *Gōdāvari Upper*, and to special increase under this head in the previous year in *Gōdāvari Lower* owing to the sale of Bendamurlanka casuarina plantation.

Bamboos. + Rs. 28,739 due to better prices obtained in *Gōdāvari Upper* and to abnormal demand in *Gōdāvari Lower* for building and sugarcane purposes.

Grazing and fodder grass. — Rs. 1,035 due to disafforestation of certain reserves and to cattle-mortality in *Ganjām* and to the introduction in *Kurnool West* of the new system of collecting grazing revenue for foreign cattle in pentas, under which the graziers are required to pay fees for the whole year instead of purchasing quarterly permits.

Other produce. + Rs. 49,489 due to enhancement of rates of tree-owners' fees in *Gōdāvari Lower* and to better prices realised in *Cassia auriculata* bark sales in *Kurnool West.*

(iii) *Miscellaneous (including confiscated drift and waifwood).*

Revenue. +Rs. 7,663 due to efficient check exercised by the river-checking staff in *Gōdāvari Lower* and to the fluctuating nature of the items.

EXPENDITURE.

A. *Conservancy and Works.*

The total expenditure was less than that of the previous year by Rs. 35,268 and the decrease was chiefly due to less departmental operations and to the curtailment of expenditure on capital works on account of the war.

B. *Establishment.*

The decrease of Rs. 16,225 was due to the posting of a lower grade Conservator to the circle and to the posting of a junior Extra Assistant Conservator to the charge of the Vizagapatam district.

In the Northern Circle, perhaps more than any other, for many years past as regards major forest produce we have been encroaching on our capital, and consequently for many years to come we have to restore that depreciated capital and cannot anticipate any increase in revenue. But the contrary is the case in the matter of minor forest produce, bamboos and grazing, and we have a right to expect considerable development of these sources of revenue in the immediate future. For some months past I have requested the District Forest Officers to make every effort to expand the revenue from minor forest produce and bamboos by giving contracts for two years instead of one, if desirable, and by offering the lease of products hitherto untouched. The present stimulus to industrial enterprise and the post-war conditions will doubtless greatly facilitate our efforts in this direction. The bark of the babul and mangrove and the fruit of babul, *Phyllanthus* and *Terminalia chebula* have been either not at all or to a very slight extent utilized as tannin-producing material. There is large scope also for the exploitation of forest fibres.

Match factories and pulp installations should enormously appreciate what were formerly considered "useless" species. It is particularly unfortunate that at the present juncture we have hardly any marketable timber in the circle, as England will probably for many years to come take every stick that its dependencies and foreign countries can supply.

With reference to grazing it is now an accepted principle that the actual fees are for the most part far below the market value of the pasture offered. Enhancement is consequently to be anticipated.

Central Circle. 148. The financial position of the year compared with that of the previous year and the quinquennial average is shown in the following abstract :—

—	1915-16.	1914-15.	Average of preceding five years.
	RS.	RS.	RS.
Revenue	11,80,976	10,90,120	11,21,429
Expenditure.			
A.—Conservancy and works including refunds.	1,95,479	2,51,895	3,83,145
B.—Establishments	3,81,218	3,99,058	3,62,060
Total of A and B ..	5,76,697	6,50,953	7,45,205
Net results ..	+ 6,04,279	+ 4,39,167	+ 3,76,224

The net results show a surplus of Rs. 6,04,279 against one of Rs. 439,167 in the previous year and of Rs. 3,76,224 the quinquennial average. Of the receipts 23 per cent were realised from major produce, 27 per cent from grass and grazing, 37 per cent from minor produce and 13 per cent from miscellaneous items. About 38 per cent of the expenditure was devoted to the upkeep and improvement of the forests and 62 per cent to exploitation, etc. It will be observed from Form No. 79 that the value of timber and other produce at sale depots at the close of the year amounted to Rs. 1,049 against Rs. 720 at its commencement. The revenue outstanding was Rs. 2,01,667-5-7 of which Rs. 7,082-1-7 fell due within the year.

The important variations between the actuals of the year and those of the previous year are explained below :—

RECEIPTS.

(i) *By Departmental Agency.*

The variation under *timber* is due to cessation of departmental operations and non-extraction of timber from Kodur-Upparapalli plantations in *East Cuddapah* as was done in the previous year, that under *bamboos* and *sandalwood* is small and calls for no remarks. Under *fuel* the decrease is due to alterations effected during the year on account of wrong credit made last year under this head and under *minor forest produce* to the realisation in 1914-15 of revenue belonging to the year preceding it.

	RS.
Timber	— 1,680
Fuel	— 7,576
Bamboos	+ 9
Sandalwood	— 229
Minor forest produce	— 7,462

(ii) *By Purchasers*

The decrease under *timber* is due to a falling off in the sale of trees on darkhast lands in *Bellary*, *Anantapur*, *Nellore*, *Chingleput* and *Chittoor* and that under *fuel* is due chiefly to low prices secured for Sriharikota fuel coupes in the *Nellore* district, to want of competition for fuel coupes in *East Cuddapah* and to the restriction in the issue of permits for unreserves in *Chittoor*.

		RS.
Timber	—	3,871
Fuel	—	45,711
Bamboos	+	3,013
Grazing	+	19,623
Minor forest produce	+	1,08,660

Increase under *bamboos* is due to better prices realized in *Bellary and East Cuddapah.* The rise in the *grazing* revenue is due to enhanced grazing fees in the *Guntūr* district, and to the extension of the Kancha system in *Nellore.* Under *minor forest produce* the increase is due to the very favourable sales of tangedu bark in *Bellary, West Cuddapah and East Cuddapah* and to increased amaroy revenue in the last-named district, to the collection during the year of the suspended tangedu kists belonging to the previous year in *Anantapur*, to the increased revenue from toddy-yielding trees on account of enhanced fees in *Anantapur*, *Guntūr* and *Nellore*, and to the larger number of trees tapped in other districts.

(iii) *Miscellaneous (including confiscated drift and waif-wood).*

\+ Rs. 26,080. The sale of fallow forest lands in *Nellore* district chiefly contributed to the increase.

EXPENDITURE.

A.—Conservancy and Works.

— Rs. 54,337. The main reasons for the decrease were —

Restricted programme of building works in all districts except *West Cuddapah*, the curtailment of cultural operations in *Bellary*, less expenditure on fire protection operations in *Anantapur* and to the absence of any large expenditure on account of compensation for acquisition of land in *Guntūr* as in last year.

B.—Establishment.

— Rs. 17,840. Decrease due mainly to the posting of an Extra Assistant Conservator and Assistant Conservator in charge of *Anantapur* and *Chittoor* districts respectively which were held by Senior Deputy Conservators in the previous year.

Great care was exercised during the year in according sanction to works and in making recommendations for any extra establishment. Only works deemed to be of urgent necessity or revenue-producing were sanctioned and those which could wait were held back for more prosperous times. Similarly no recommendations for increase of establishment save in the most exceptional circumstances of real necessity were made. Everything was subordinated to the necessities of the war in the matter of expenditure in the department. More prosperous days are hoped for and will come, it is hoped, before long; for the department has been struggling against adversity and the most difficult conditions for many years past now.

149. The following abstract compares the financial position of the year under report with that of the previous year and the average of the preceding quinquennium :— *Southern Circle.*

——	1915–16.	1914–15.	Average of preceding five years.
	RS.	RS.	RS.
Revenue	10,40,794	12,45,251	13,38,391
Expenditure.			
A. Conservancy and works (including refunds).	2,09,604	2,38,364	3,37,183
B. Establishments	3,70,506	3,84,569	3,57,710
Total expenditure ..	5,80,110	6,22,933	7,94,893
Surplus ..	4,60,684	6,22,318	5,43,498

The net results show a surplus of Rs. 4,60,684. This large fall, as compared with previous years, is the natural outcome of the policy of selling the valuable casuarina plantations, divesting ourselves of the Trichinopoly padugais and generally concentrating work on hill rather than plains forest. The revenue decreased by Rs. 2,05,451 and the expenditure by Rs. 42,823. Of the receipts 43·8 per cent was from major produce, 47·7 per cent from minor produce and 8·5 per cent from miscellaneous sources. 3·4 per cent of the expenditure was spent on exploitation, 38·8 per cent on the upkeep and improvement of the forests and 57·8 per cent on miscellaneous items. The proportion of net to gross revenue fell from 50 per cent to 44 per cent. The outstanding revenue at the close of the year was Rs. 2,84,320 of which Rs. 25,002 fell due within the year. The estimated value of timber and other produce at sale depots at the close of the year was Rs. 52,093 against Rs. 51,851 at the commencement of the year.

RECEIPTS.

The important variations between the actuals of the year under report and those of the previous year are explained below :—

(i) *By Departmental Agency.*

Sandalwood + Rs. 63,827. Due to the fact that more energy was shown in the extraction of dead and dying trees in the sandalwood areas and to the fact that the market for sandal improved considerably.

(ii) *By Purchasers.*

Timber —Rs. 14,218. This is always a variable head depending as it does chiefly on the revenue derived from the sale of trees on darkhast lands.

Firewood —Rs. 2,11,912. Due to the sale of casuarina plantations in South Arcot and Tanjore districts in 1914–15 which largely increased the revenue of that year.

Bamboos + Rs. 14,955. Due to the collection during the year of an instalment relating to the previous year in North Salem and to the reasons explained in paragraph 135 supra.

Grazing —Rs. 22,784.
Minor produce —Rs. 2,863. } Due to reasons explained in paragraph 138 supra.

EXPENDITURE.

A. " Conservancy and Works."

The expenditure under A. Conservancy and Works decreased by Rs. 28,436 as compared with that of the previous year. The decrease was chiefly under A-II, A-VII and A-VIII due to less commission paid to permit issuing officers owing to reduced collections under II (*d*) and II (*e*), curtailment of expenditure under communications and buildings owing to financial stringency, the abandonment of cultural operations and the reduction in the number of watchers.

B. " Establishment."

The expenditure fell short of the previous year's by Rs. 14,063. The decrease occurs chiefly under I (*b*) Rs. 5,839 and contingencies Rs. 6,422.

B. I (b).—Due to the non-posting of an Extra Assistant Conservator to South Vellore for a greater portion of the year and to the posting of junior officers to South Vellore and Tinnevelly.

Contingencies.—Due to there having been no adjustment during the year of the cost of uniforms and warm clothing to forest subordinates as in the previous year.

150. The financial position of the year is compared with that of the previous year and the average of the preceding quinquennium in the following abstract :— *Western Circle.*

—	1915–16.	1914–15.	Previous quinquennial average.
	RS.	RS.	RS.
Revenue	9,71,800	9,12,063	8,13,730
Expenditure—			
Refunds	2,683	6,208	4,790
A. Conservancy and Works ..	3,98,094	5,59,205	4,59,655
B. Establishments	3,73,794	3,65,862	3,57,506
Total expenditure ..	* 7,74,571	9,31,275	8,21,951
Net ..	+ 1,97,229	— 19,212	— 8,221

* Excludes Rs. 1,144 under "A. Conservancy and works" and Rs. 3,285 under "B. Establishments" incurred by the Working Plans Officer in June 1916, which relate to the Southern Circle.

The net results show a surplus of Rs. 1,97,229 against a deficit of Rs. 19,212 in the previous year and surpass any previous record for the circle. The gross receipts of the year exceeded those of the preceding year and the quinquennial average by Rs. 59,737 and Rs. 1,58,070 respectively. Fifty-nine per cent of the revenue was derived from major produce, eight per cent from grass and grazing, 13 per cent from minor produce and the balance 20 per cent from miscellaneous sources. Of the expenditure, 34 per cent was incurred on the exploitation of forests, 34 per cent on their upkeep and improvement and 32 per cent on miscellaneous items. The estimated value of the produce at sale depots at the end of the year was Rs. 68,147 against Rs. 24,261 at its commencement. The revenue outstanding was Rs. 1,03,635 of which Rs. 62,612 fell due within the year. The increase in outstandings is mainly due to sums due for estates on the Anamalais, on account of which about Rs. 40,000 has been collected since the end of the year.

The important variations between the actuals of the year and those of the previous year are explained below :—

Receipts.

(i) *By Departmental Agency.*

Timber + 59,800. The increase was chiefly in *North Malabar* due to a special sale of rosewood, and to larger sales in the *Nilgiris*, *South Coimbatore* and *South Malabar*.

Fuel — 21,976 due chiefly to the extension of contract system partly counterbalanced by increased demand in the *Nilgiris*.

Bamboos + 3,273. Due to a larger number of bamboos used for rafting in *South Malabar*.

Sandalwood + 7,496. Due to better prices realised and to the increased outturn in the *Nilgiris* and *Kollegal*.

Minor produce — 4,110. Chiefly in *North Coimbatore* due to stoppage of departmental collection.

(ii) *By Purchasers.*

Timber — 21,683. Due chiefly in *North Malabar* to non-sale of timber coupes in Chedleth for want of demand, and in *Kollegal* to fluctuations in the revenue from darkhast lands.

Bamboos + 15,469. Due to better prices realised for coupes and to the credit of previous year's revenue in *North Coimbatore* and to sale of a larger area in *South Coimbatore*.

Grazing — 5,567. Due to a smaller number of foreign cattle licensed for grazing in *Kollegal* owing to the favourable early rains in Mysore and Salem and to prevalence of cattle disease in *North* and *South Coimbatore*.

Fuel — 2,240 } Call for no special remarks.
Minor produce — 673 }

(iii) *Miscellaneous (including confiscated drift and waifwood).*

+ 29,923. Due chiefly to better prices realised by the sale of elephants and to the increases in the demand on account of additional lands leased out and of rents from estates on the Anamalais.

EXPENDITURE.

A. Conservancy and works — 1,61,111. The expenditure was abnormal last year due to the acquisition of Mudumalai and Kumbarakolli leased forests in the *Nilgiris*.

B. Establishment + 7,932. The increase was chiefly under "Salaries" and "Allowances" and was due to the posting of an Extra Deputy Conservator and a probationer to the circle and of two Extra Assistant Conservators for special works in the *Nilgiris*, to promotion of one Extra Assistant Conservator to class of Extra Deputy Conservator and of two Rangers to Extra Assistant Conservator's grade, to increments under the time scale of pay and to debit of a portion of the pay of the special officer for the introduction of the forest panchayat scheme.

CHAPTER IV.—ADMINISTRATION.

Northern Circle.

151. *New District Forest charges.*—No new District charges were formed during the year. Proposals for the formation of a fourth division in the Kurnool district are being formulated by the Collector. This will give much needed relief to the District Forest Officers of Kurnool South, and West whose present charges are in each case beyond the scope of one District Forest Officer. The same remark applies to the Upper Gōdāvari District Forest Officer's present charge.

152. *New ranges.*—There were no changes.

153. *Conduct of establishment.*—On the whole satisfactory. Special mention must be made of the good work of Rangers, P. Raman Menon, B. Punniah, N. S. Anantacharlu, V. S. Subrahmanya Ayyar, M. Hussain Khan, K. P. Benjamin, J. D. David, C. G. Ganapathi, A. Rama Hebbar and M. Krishna Rao and Deputy Rangers, S. Raghavulu, Behara Bhagirathi, M. Narasinga Rao Nayudu, Aga Mirza Sahib, T. Khasim Sahib, B. S. Sankaram, S. E. Thomas and T. G. Venunatha Rao. The following punishments were inflicted: Three Rangers were temporarily reduced, one Deputy Ranger was sentenced to imprisonment, two were dismissed, two removed, one was suspended and five were reduced.

Protective staff.—The conduct of this branch showed improvement in some divisions; but the list of punishments still continued to be long. One Forest Guard was convicted; one Forester, eight Forest Guards, nine Watchers, one Tannadar and one Permit-issuing Gumastah were dismissed; two Foresters, 19 Forest Guards, 49 Watchers, 13 Tannadars and one Permit-issuing Gumastah were removed; five Foresters and seven Forest Guards were reduced; five Foresters, one Plantation Overseer, 28 Forest Guards, 23 Watchers, 12 Tannadars and one Permit-issuing Gumastah were suspended. Where feasible I think that reduction is a more suitable punishment than suspension: the latter being reserved as a temporary expedient to meet an emergency.

Ministerial staff.—Its work and conduct are reported to be satisfactory in all divisions except *Kurnool West.* From my own experience of the Circle I am unable to endorse this opinion in some cases. There is far too general a tendency to delay important and urgent papers at times to the detriment of the interests of a subordinate. But until the present prospects of a District Forest office staff are ameliorated matters are not likely to improve, unless a District Forest Officer exercises very rigid control over his office. One Range peon was dismissed, two Accountants of a District Forest office, one Range clerk and one District Forest office peon were reduced, two Head clerks of a District Forest office, two Range clerks and one District Forest office peon were suspended and one Range clerk was convicted of misappropriation. The Head clerk of the *Kurnool West* District Forest office was compelled to retire on account of incompetency.

The work of the Direction office has not been satisfactory. Files have been delayed for months and even years, papers have been mislaid, and business has been transacted in an unmethodical manner. But I am convinced that nearly every clerk in the office has worked hard and that the unsatisfactory results have been due to lack of control, of training, and of business-like methods, and not to want of industry. Reforms have now been introduced and I anticipate that the present year's working will show considerable improvement.

154. *Health of the establishment and casualties.*—The health of the establishment continued to be bad except in *Kistna*, the usual malady being malaria. It was as usual particularly prevalent in *Ganjām*, *Gōdāvari Upper*, and *Nallamalais* One Ranger, one Deputy Ranger, one Forester, three Forest Guards, one Tannadar, seven Watchers, one District Forest office clerk, one Range clerk and one Range peon died. The District Forest Officer, *Kurnool East*, suggests the appointment of an itinerating Sub-Assistant Surgeon to give prompt help to subordinates working in the Nallamalais; but the Collector doubts the necessity for a special Sub-Assistant Surgeon, as the principal trouble is malaria and there is no need of a special man to administer quinine. Medicines are supplied to Range officers and they are instructed in the principles of dealing with malaria

The District Forest Officer, *Upper Gōdāvari*, similarly asks for a Sub-Assistant Surgeon to be deputed to accompany him on tour.

It is a misfortune in this circle that there are very few healthy ranges, and that it is therefore extremely difficult to give to a Ranger, who has partially broken down, a change that will benefit his health.

155. *Relations between Revenue and Forest officials* continued to be satisfactory.

156. *Service books* were maintained and verified in all divisions.

157. *Tour of Forest Member.*—The Hon'ble Mr. H. F. W. Gillman toured in Russelkonda, Mojjagoda and Kukuluba ranges of the *Ganjām* district.

158. *Tours of the Conservator.*—Mr. A. W. Lushington was in charge of the circle up to 21st September 1915 and Mr. F. L. C. Cowley-Brown subsequently. These two officers spent 173 days in camp visiting all the divisions in the circle. All District Forest offices were inspected during the year. With the increase in intensity, complexity, and extent of working the circle is rapidly becoming too big for adequate control if the highest efficiency is to be maintained. If the Conservator happens to be in a remote portion of the circle and the Upper Gōdāvari District Forest Officer is at the northern end of Nugur taluk at least five weeks must elapse before an answer to a letter between these two officers can be obtained. Similarly transfers of Rangers from one end of the circle to the other involve long and unproductive delays.

159. *Inspection of Range offices.*—All the Range offices except Chelama and Giddalore in Kurnool South were inspected by the respective District Forest Officers.

160. *Audit of accounts of District Forest offices.*—The accounts of 1915-16 of Gōdāvari Lower were audited by the Auditors from the Accountant-General's office. Accounts of 1914-15 of the remaining divisions were audited during the year.

161. *The Madras Forest College.*—Out of the five students deputed for 1914-16 course, two obtained Higher standard certificates and two Lower standard certificates and one failed. Of the six students deputed for 1915-17 course, one was sent back as unfit to follow the course; the rest are undergoing training. Six Government students were deputed for the course commencing from 1st August 1916.

162. *Vernacular Training School for Foresters and Forest Guards.*—The Vernacular Training School at Rudravaram for the session ending 30th July 1916 was started with 30 students. Owing to illness, six Forest Guards were withdrawn from the school. Of the remaining 24, 15 passed in the first class and eight in the second class and one failed. Several changes were introduced into the curriculum with a view to eliminating the previous tendency to make the course too theoretical and far beyond the average student's capacity for assimilation.

I regret that the Senior Instructor, of whose zeal and keenness there was no question, failed to co-operate in the introduction of these modifications.

163. *Work and service of Superior officers.*—The work of Messrs. Minchin, Master, Lasrado, Seager, Madan, have been favourably commented on by the respective Collectors.

I am of opinion that every Imperial officer and with one exception every Provincial officer has worked in the forests devotedly. I have for the most part nothing but praise for their field work, although I noticed one or two sylvicultural errors, and one lapse in the matter of the patrol system. With such a high average of conscientious effort it is almost invidious to single out individual cases for mention, but I feel that the general work of Messrs. Minchin and Lasrado in *Ganjām* and of Mr. Abdul Quadir in *Vizagapatam*, the fire protection of Mr. Thompson in *Kurnool South* (in spite of an only partially successful season), and control of the Koyas by Mr. Rigold in *Upper Gōdāvavi* should not pass unrecorded.

Mr. Stracey's work has been of great help to me.

The control over the District Forest office in some cases has not been quite as satisfactory as I could have wished and in one case markedly the reverse, but I feel that matters are rapidly improving.

Mr. A. W. Lushington, C.I.E., Conservator of Forests, first grade, retired from the service on 21st September 1915.

Central Circle.

164. Mr. S. Cox held charge of the circle until 17th December 1915 and Mr. H. B. Bryant for the remaining period of the year. During the year the system of administration in the Presidency has undergone a great change consequent on the issue of G.O. No. 260, Revenue, dated 7th February 1916. The Government has by the issue of this order sought to place District Forest Officers in this Presidency in a more independent position than they have hitherto occupied. The object of the Government Order is that whilst retaining the general powers and authority of the Collector as head of the district for the welfare of the community in general, to leave in the hands of the District Forest Officer and Conservator all purely sylvicultural and departmental matters. The change is bound to be productive of good results although difficulties will surely arise which will have to be met and surmounted as they occur. From the point of view of the Forest Administration the important question is that the District Forest Officer should not, by gaining independence of the Collector's interference in departmental matters, lose the assistance which he hitherto has got or ought to have got from the Revenue Officers such as Tahsildars, etc. If the Government Order is worked on sensible lines there seems no reason why he should do so, but there can be no doubt that the danger exists. The working of the new arrangement will more than ever depend on the whole-hearted co-operation of the Collector and the District Forest Officer of the district, and since in the past, this has generally stood a far greater strain, there is no justifiable reason to doubt that it will be equal to the demands of the present and future.

165. *District and Range charges.*—Administrative sanction of Government has been obtained for the trifurcation of *Cuddapah* district but the sanction of Government in the Financial department is awaited. Two of the existing ranges in *Nellore* district were amalgamated. Sanction for the division of the present Tirupati range and a portion of Madanapalle range, *Chittoor* district into two ranges, viz., Mamandur and Chamala was accorded during the year and it is to take effect from 1st October 1916. Portions of Gorivikanama and Dorigallu reserves of *Cuddapah* district and of Iswaramala reserve of *Chittoor* district were transferred to Kadiri range of *Anantapur* district.

166. *Work of superior officers.*—Only Collectors of *Nellore* and *Chittoor* have offered remarks on their District Forest Officers and others have not. Mr. R. Ramachandra Rao, Collector of Nellore, remarks that Mr. Arbuthnot has worked hard and well during the year and is popular with the public. A good deal of the progress in Kancha system is specially due to him. Mr. Devadasan also discharged his duties satisfactorily. Mr. H. L. Braidwood, Collector, Chittoor, writes as follows: "So far as I have been able to judge Mr. Sathe's work has been decidedly good."

Conservator's remarks.—Mr. T. A. Whitehead in *East Cuddapah* has worked with his usual zeal and ability. Mr. Arbuthnot in *Nellore* has done well specially in the matter of pushing the system of Kanchas in the district. Mr. G. Venugopaul Nayudu in *Anantapur* has succeeded in tightening up the Forest Administration of

the district a good deal. Mr. D. L. Sathe although only in charge of *Chittoor* for part of the year is getting a good grasp of district work and only needs experience to enable him to develop into a thoroughly efficient officer. Mr. Raju Naicker has done his best in *West Cuddapah* wherein working plan work is now much needed. The administration in *Bellary* was characterised by inefficiency under Mr. Thornton and that in *Chingleput* cannot be commended under M.R.Ry. K. Gajaraja Mudaliyar. In *Guntūr* M.R.Ry. M. Panchapakesa Ayyar worked hard to improve the administration of a very backward district. Mr. S. V. Devadasan, M.R.Ry. K. G. Belliyappa and M.R.Ry. E. V. Padmanabha Pillai did well in their respective spheres of work during the year.

167. *Executive staff.*—The work and conduct of rangers in the circle leave much to be desired. There are some keen and good officers who conscientiously strive to do their best to carry out their duties to Government efficiently but they are exceptional to the rule but many there are, as stated in last year's report, with no interest in their profession and with no intention of doing more work than serves to keep them in the service. This is a most regrettable fact and one which, it is to be hoped, will disappear when the long overdue reorganization of this branch of the department is taken in hand and finally sanctioned. Until this has been done there is, it is to be feared, little prospect of much improvement. During the year three rangers were reduced, one was dismissed and the services of one were dispensed with and one resigned.

168. *Protective staff.*—The conduct of the staff is by no means satisfactory. Four foresters were reverted, seven were reduced, seven were suspended, seven removed from service and one resigned. Among the guards six were reduced, 63 suspended, 87 removed from service and nine resigned. The present unsatisfactory state of the Protective establishment is due partly to their poor pay and prospects, and partly to the inferiority of many of the rangers under whom they have to work. Reorganization is urgently called for with regard to this branch also.

169. *Ministerial establishment.*—The work is reported to be satisfactory in all districts except *East Cuddapah* and *Nellore*. The Conservator considers that there is much room for improvement in every District Forest office of the circle.

170. *Health of establishment and casualties.*—Health of establishment is reported to be generally good in all districts except *Bellary*. One head clerk, one second clerk, one forester and one guard of *Bellary* district, one deputy ranger and one guard in *Anantapur* died of malaria fever. Two guards were murdered and one range clerk died of drowning in a well in *Nellore* district.

171. *Relations between Revenue and Forest Officers*—reported to be cordial throughout the circle. The Conservator considers that in some districts there is a great want of co-ordination between the two departments and that the correct relationship between Revenue and Forest Officers is in many localities not properly understood. There is much room for improvement in this matter.

172. *Service books*—were maintained and verified in all the districts.

173. *Tours of the Forest Member.*—The Forest Member inspected a portion of forests of the *Chingleput* district and his notes of inspection were communicated in B.P. Forest No. 53, dated 10th April 1916.

Touring of the Personal Assistant to the Forest Member.—Inspected the reserves of *Bellary* and *Chingleput* districts and visited *Guntūr* district also.

174. *Conservator's inspection.*—The Conservator was on tour for 192 days. All the District offices except *Bellary* and *Anantapur* were inspected during the year. Portions of forests in *West* and *East Cuddapah*, *Nellore*, *Chingleput* and in *Chittoor* were inspected and inspection notes submitted. The offices of *Bellary* and *Anantapur* were inspected in July 1916.

175. *Touring of District Forest Officers.*—The minimum period of touring required was exceeded in all districts except *West Cuddapah* where there was a slight deficiency.

176. *Inspection of Range offices.*—All the Range offices were inspected except Nellore range of the *Nellore* district.

177. *Audit of accounts of District Forest offices.*—The accounts of all the districts except *Bellary* were inspected by the Assistant Inspector of Local Fund Accounts and the general result of inspection was satisfactory.

178. *Imperial Forest College, Dehra Dun.*—No probationer was deputed from this circle during the year.

179. *The Madras Forest College, Coimbatore.*—Five deputy rangers were deputed to the college during the year. One ranger returned from college with honours certificate and three failed and one died at the college. The result was anything but satisfactory.

180. *Vernacular Training school.*—The school was held in *Nellore* district and twenty-seven guards underwent training. The school did good work under the instructor M.R.Ry. V. N. Seshagiri Rao and his assistant M.R.Ry. A. Ranganayukulu Nayudu and the District Forest Officer took a good deal of interest in connection with its management.

Southern Circle.

181. The year has been fruitful in administrative changes.—

(1) The position of the Collector and District Forest Officer was completely altered by the issue of G.O. No. 260, Revenue, dated 7th February 1916. As a result of this Government Order a great deal of extra work has been thrown on the Conservator more especially in the matter of appeals.

(2) The Government have accepted in the Tiruppattur Javadis the principle that the management of cultivated lands on the hills should be vested in the District Forest Officer who will be in the same relation to the Collector as a Divisional Officer.

This principle was advocated by Mr. Cherry in 1883 for the whole of the hill forests of Salem and has from time to time received the support of Revenue and Forest Officers.

(3) The application of the principles advocated by the Forest Committee has led to somewhat revolutionary proposals in the South Arcot and Trichinopoly districts. It was decided, after tours by the Forest Commissioner, his Assistant Mr. Davis and the Conservator, that the department should gradually give up all plain forests either for cultivation or for panchayat management. As a result these two districts will eventually cease to be forest divisions, and work will be concentrated in the true forest districts of North Arcot and Salem.

(4) The control of the Forest Engineer was transferred from the Public Works Department to the Forest Department, and Mr. F. J. Marshall, the Forest Engineer of this circle, has been instructed to organise an Engineering Branch of the Forest Department.

182. *Special duty.*—Mr. E. A. Davis was placed on special duty to settle the question of further reservation in Attur taluk and as a result has proposed to reserve about 50 square miles in the Pachamalais and Kollimalais. Mr. T. N. Hearsey on special duty for "spike" investigation has made some interesting discoveries of phylloxera-like bugs which appear to be producing a phyllody similar to spike in many kinds of trees and shrubs.

183. *Circle charge.*—Mr. P. M. Lushington was in charge of the circle throughout the year.

184. *Divisional charges.*—The bifurcation of the South Vellore division was sanctioned during the year, but the new district will not be formed till October. A trevised description of the common boundary between the North and South Vellore divisions was published, transferring the sandal areas from the North to the South Vellore division.

The padugai forests on the Cauvery and Coleroon which were under the control of the Forest Department in Trichinopoly, Tanjore and South Arcot districts were transferred to the control of the Public Works Department during the year.

The Vandamalai-Rangamalai reserve was transferred from Trichinopoly to Madura.

185. *Range charges.*—The sub-division of the Tiruppattur range was sanctioned but the new range was not actually formed till 1st August 1916.

With the transfer of padugais to the Public Works Department the Kulittalai range in Trichinopoly was abolished and the Udayarpalaiyam range was amalgamated with Perambalur. The Tanjore range was abolished and the forests transferred to the Cuddalore range of the South Arcot district.

186. *Work of superior officers.*—Mr. H. A. Latham was selected to act as Conservator of the Western Circle in April 1916. Mr. A. B. Jackson's vigour and energy in Madura have been specially commended by the Collector.

Mr. K. R. Venkatarama Ayyar has shown exceptionally good work in the heavy district of South Vellore. He was promoted to the class of Extra Deputy Conservator with effect from 1st March 1916.

Mr. C. C. Wilson was very energetic and has done much useful work in connection with working plans.

187. *Executive staff.*—The work and conduct of the rangers was generally satisfactory.

Rangers.—K. L. Muniswami Ayyar, T. G. Sankaran Nayar and A. K. Kandan have all done good work. A ranger and a deputy ranger were convicted under section 304 (*a*) of the Indian Penal Code. One ranger was dismissed from service for having placed himself under pecuniary obligation to a contractor. His appeal has not yet been disposed of. One ranger was reduced temporarily to deputy ranger and transferred to the Western Circle.

Deputy Rangers.—This class has now been divided into—

(1) men educationally qualified to go through the College class and become rangers;

(2) men who will have to become foresters when the deputy rangers' class is abolished. At present there is considerable difficulty in recruiting men of the first description, as forest life is not congenial to them and they are frightened of work on the Javadis, Pachamalais and other hills.

188. *Protective staff.*—The conduct of the protective staff shows little sign of improvement. There were 151 dismissals or removals, 110 suspensions and 17 reductions. Tinnevelly, however, is exceptional in this respect and in Madura one guard retired on a pension. Fortunately the number of watchers employed is gradually diminishing.

189. *Ministerial establishment.*—The ministerial establishment is reported to be satisfactory.

190. *Health of establishment.*—There has been a great deal of sickness amongst rangers and one who was working in the Pachamalais and Kollimalais broke down, whilst another got seriously ill and died after the close of the year. The Javadis are responsible for a great deal of ill-health in South Vellore and the more work is concentrated in these malarious tracts, the more subordinates are likely to suffer until they have been properly housed and supplied with wholesome drinking water.

191. *Casualties.*—One guard and two watchers belonging to the Perambalur range of Trichinopoly died and one watcher in Madura.

192. *Relations between Revenue and Forest officers.*—Continued to be cordial.

193. *Service books* were maintained and verified in all districts.

194. *Conservator's inspections.*—The Conservator toured for 204 days during the year. All the districts except Madura and Tinnevelly were visited and the offices of these districts inspected. Inspection notes were written for South Salem, Trichinopoly and South Arcot and for the Amerdi plantation in North Vellore.

195. *Touring of District Forest Officers.*—The touring of District Forest Officers was satisfactory. In Trichinopoly and Madura touring was short owing to ill-health of the District Forest Officers concerned.

196. *Forest Commissioner's Tours.*—The Forest Commissioner toured in South Vellore and South Arcot districts.

197. *Inspection of Range offices and sale depots.*—All the range offices in the circle except one in Tinnevelly were inspected. The two sandalwood sale depots were also inspected during the year.

198. *Audit of accounts of District Forest offices.*—All districts were inspected and the accounts were declared to be satisfactory.

199. *Imperial Forest College, Dehra Dun.*—One probationer for the Provincial Forest Service was deputed to the College.

200. *Madras Forest College, Coimbatore.*—Two rangers and three deputy rangers obtained higher standard certificates. Out of the five deputy rangers deputed for the 1915-17 course, one was sent down being unable to follow the course. Two rangers and four deputy rangers have been deputed for the 1916-18 course.

201. *Vernacular Training School.*—The session of the Vernacular Training School was held in the North Salem division under the charge of Instructor, Ranger Belliappa. The course was for students from the Salem and North Arcot districts and instruction in sandal work was made a speciality.

The results were not altogether satisfactory as it was only found possible to select 26 instead of the usual 30 for deputation.

Out of 26, two had to be sent back on account of ill-health and four deserted so that only 20 passed through the full course.

Western Circle

202. The chief feature of the year was that the Collector was relieved of purely departmental work and that the District Forest Officer was placed in a position to enable him to express his own opinion on forest matters.

Mr. C. D. McCarthy held charge of the circle up to 12th April 1916 when he proceeded on combined leave and was relieved by Mr. H. A. Latham.

203. *District charge.*—The division of the *South Canara* district into two forest charges designated *Mangalore North* and *Mangalore South* was brought into effect from 16th May 1916.

204. *Range charge.*—There were no changes during the year.

205. *Establishment.*—The clerks and menials for the office of the new *Mangalore* division and the establishment required in connection with the working of the Timber Transit Rules in *South Malabar* were sanctioned.

Work and Services.

206. *Superior officers.*—Collectors seem satisfied on the whole with the work of their District Forest Officers. With one or two exceptions all the superior officers (Imperial and Provincial) have worked well; in the case of some of the younger ones there is a tendency to strain at what is considered red tape. For special commendation I would mention the work of Mr. Wood for improving the timber extraction, Mr. Richmond for pushing on his fuel sales and demarcation and Mr. Bourne for work in connection with the Nilambur teak plantations in and out of office.

207. *Executive establishment.*—The work of Rangers with a few exceptions, has generally been favourably reported on. Rangers A. R. Narasimha Ayyangar, C. Sankunni and A. Nicholas are mentioned specially for good work. The Ranger whose prosecution was referred to in the last year's report was acquitted, but was punished departmentally. One Ranger was reduced to Deputy Ranger, two were suspended and reduced after the close of the year. The work of Deputy Rangers was on the whole fairly satisfactory. The services of one were dispensed with and the probation of 14 was terminated.

208. *Protective staff.*—The work of the establishment with the exception of a few Foresters continued to be far from satisfactory. *Punishments reported are—Foresters.*—The services of two were dispensed with, two were reduced and three were suspended. *Guards.*—Dismissals 14, removals from service 22, suspensions 36 and reductions 7.

209. *Ministerial establishment.*—The work of the staff in the Divisional offices was fairly satisfactory. The head clerks of the *Nilgiris* and *South Coimbatore* are commended for good work. The work of the range establishments has been fair except in one of the offices in *Mangalore South* where it was bad. *Punishments.*—The services of one range clerk in each of *North Malabar, Central Coimbatore* and *South Coimbatore* were dispensed with; one in *Kollegal* was suspended and one was reduced in *Central Coimbatore.* The staff in the Circle Office have worked well under the Manager, M.R.Ry. T. Ramanuja Ayyangar, a man with much experience.

210. *Health of the establishment and casualties.*—The general health of the establishment was fair in *Kollegal*, *North Coimbatore*, and *South Canara*, except at the foot of the ghats in the last, and bad as usual everywhere else except on the *Nilgiri* plateau. Two Foresters, two guards and one watcher died during the year. Several of the subordinates were granted sick leave. One Ranger retired on completion of service and one guard was invalided.

211. *Relations between Revenue and Forest Officers.*—In *Kollegal* there was a good deal of friction early in the year which disappeared with the transfer of the then District Forest Officer, M.R.Ry. P. Venkataramanan; otherwise relations continued to be cordial. All Range Officers in *South Canara* and *Kollegal* and one Range Officer in *South Coimbatore* attended the jamabandi. The District Forest Officer, *Central Coimbatore*, halted with one of the Revenue Divisional Officers at his jamabandi camp and both officers instructed the members of some of the panchayats about the management of the forests handed over to their control. Such attendance in *Malabar* was, as usual, not required and was not carried out in *North Coimbatore*; the non-attendance in the latter division has not been explained. The officers in the *Nilgiris* were in constant touch with each other. No matters of importance cropped up at any of the jamabandis.

212. *Service books.*—These are reported to have been maintained in all districts and verified up to 31st March 1916 except in the *Nilgiris* where they were verified up to 31st December 1915.

213. *Tours of the Forest Member.*—The Hon'ble Mr. H. F. W. Gillman toured in the divisions of *Mangalore South*, *North Malabar*, the *Nilgiris* and *South Coimbatore.* The forests of *Mangalore South* from which overmature timber is extracted, the demarcation work in the forests of the *Nilgiris*, the new district boundary between the *Nilgiris* and *Coimbatore* and the estates on the Anamalais were inspected by him.

214. *Conservator's inspection.*—Some of the forests of *Mangalore South*, *North Malabar*, the *Nilgiris*, *Central* and *South Coimbatore*, the teak plantations in *South Malabar* and all District Forest offices were inspected. All the offices were found to be generally in fair order. The number of days spent in camp was 137. The short touring so far as the writer of the report is concerned, was due to the fact that three District Forest offices at headquarters had to be inspected during the period he held charge and that he had to be present for the examinations in connection with the Forest College. His predecessor was unwell.

215. *Touring of District Forest Officers.*—All the District Forest Officers except *South Canara* and *South Malabar* spent in camp more than the minimum period of touring prescribed. The short touring in *South Canara* is ascribed to the poor health of M.R.Ry. V. Raman Menon and to Mr. Longrigg's stay at headquarters for 15 days in connection with the division of the district and in *South Malabar* it was due chiefly to the fact that the District Forest Officer had to spend 82 days in collecting data for the preparation of a revised working plan for and in thinning the teak plantations within the five-mile radius of his headquarters.

216. *Inspection of Range offices.*—All range offices except one in *Central* and two in *South Coimbatore* were inspected. The results are reported to be generally satisfactory with five exceptions. With the exception of the Coondapur sale depot in *South Canara*, all depots were inspected.

217. *Audit of accounts of District Forest Offices.*—The accounts of all the offices except *South Malabar* and *North Coimbatore* were audited by the Local Fund Audit establishment. The Assistant Accountant-General inspected also the accounts of the *Kollegal* office. The results are reported to be satisfactory.

218. *The Madras Forest College, Coimbatore.*—Three Rangers and one Deputy Ranger passed the course taking the higher standard certificate. One probationary Ranger failed and his probation was terminated. Two probationary Rangers and three Deputy Rangers were deputed for training for the 1915–17 course; one of the Deputy Rangers was sent back for incapacity at the end of the first year's course.

219. *The Imperial Forest Research Institute and College.*—One probationer for the Provincial service was deputed to the College after having undergone preliminary training in *North Coimbatore.*

220. *The Vernacular Training School.*—Of the 28 students remaining at the close of the last session held in *Central Coimbatore*, seven secured first class and twenty-one second class certificates. This year's session was held in *North Coimbatore* and subordinates from the four divisions of *Coimbatore* and the *Nilgiris* were deputed for training. The strength of the school at its start was 28 of whom one died of pneumonia. Several of the men sent seemed physically unfit for the work they had to do.

CHAPTER V.—GENERAL.

(*a*) Rules under the Forest Act.

Northern Circle.

221. *Timber transit rules.*—(i) The rules are reported to have worked satisfactorily in all divisions. The District Forest Officer, *Gōdāvari Lower*, suggests that private forests in the division adjoining Government forests may be notified by the Collector under rule 4 of the model Timber Transit Rules (framed under sections 35 and 36 of the Madras Forest Act) to prevent illicit removals from Government forests under cover of permits issued by private persons.

(ii) *Rules under section 26 of the Forest Act.*—The privileges allowed by these rules were generally utilised and no complaints or abuses were brought to notice except from *Kurnool West*, where a good deal of timber was smuggled from the unreserves in the Yerramalais. It is hoped that the introduction of the revised Timber Transit Rules will remedy matters.

(iii) *Rules framed for the collection and disposal of driftwood.*—The revised rules have been sanctioned and brought into force during the year in *Gōdāvari Lower* and *Upper* and *Kistna.* The lease system has again been introduced in the *Lower Gōdāvari* division.

(iv) *Rules for the guidance of Forest Officers in compounding forest offences.*—These rules worked smoothly and well in all divisions.

(v) *Rules framed under the Forest Act for private forests*—were worked satisfactorily. The Salur estate has not made much use of the rules for constituting reserves, proposals for only one block as yet having been received. In Jeypore (Malkanagiri range) it would appear that conservancy lines have not answered their purpose.

The management of the Madgole forests by the Court of Wards produced very satisfactory results. Provisions under section 26 of the Forest Act were extended to this estate.

The Kurupam estate proposed a number of reserves, only one of which has so far been sanctioned. In *Kistna*, rules under sections 26 and 32 of the Forest Act were sanctioned for the management of forests and waste lands in the Vuyyuru estate.

(*b*) Supply of forest produce to meet the wants of the people.

222. (i) Coupes in convenient localities for the supply of fuel, timber and bamboos were generally sold to the contractors to meet the wants of the people. With the District Forest Officer, *Kurnool West*, I met representative inhabitants of Nandyal in October 1915. They represented that the selling of coupes to contractors resulted in rings being formed, but they were not prepared to go to the coupes themselves where daily retail sales were also being held. In *Gōdāvari Lower* the permit system was restricted to Rampa and unreserves under the control of the Forest Department. In *Kurnool East* agricultural implements were collected departmentally by Chenchus and sold to the public. In *Kurnool South* the exploitation of coupes was as far as possible confided to local agency so that the wants of the people may be met first. In order that the average ryot may be induced to enter into competition, lines in small sections were put up for auction and purchased locally. In *Kurnool West* the question of the supply of agricultural implements and small timber generally has been under consideration and proposals for making the supply on partly prepaid indents have been submitted to the Board. Timber and fuel felled *departmentally* is sold in monthly auctions at the edge of the coupe, a sufficient reserve of material being kept for sale in retail.

223. *Free removal of grass.*—This was permitted in *Vizagapatam*, *Gōdāvari Lower*, *Kistna* and the *three Kurnools*, and was freely availed of by ryots except in *Kurnool West*. No instance of abuse was brought to light. In *Kurnool South*, the village of Bachapalli was excluded from this concession as a penalty for having failed to render help in putting out fires. I hope in future to encourage further the free removal of grass by cart-loads in return for successful protection.

224. *Hill tribes.*—In *Ganjām* the assistance practically of all Khonds living adjacent to or inside the reserves was enlisted in fire and general protection of the forests. They received concessions in the way of dry fuel, grass, unclassified timber for repairing houses and minor forest produce for the assistance they had rendered. Some Khonds whose lands had lapsed into the hands of money-lenders were granted banjar lands after the tree growth above 2 feet in girth standing thereon had been auctioned. In *Vizagapatam* the hill people had no complaints against the working of the Forest laws and the privileges given to them were in no way abused. In Downur mutta, however, some villagers showed indifference in putting out a big fire in Dharakonda Reserve. The matter was enquired into and a warning was issued. In *Gōdāvari Upper*, the Koyas and Reddis did good work in clearing fire lines and in the protection of forests from fire. Special rewards for successful fire protection were distributed during the year. It is reported that both Koyas and Reddis showed an inclination to remove themselves from the division when pressed to do work on the roads now under construction, despite the fact that they admit that they are properly paid. There was, however, very little if any actual emigration as the road works were stopped to effect economy on account of the war. The District Forest Officer considers that this tendency of hill men must be kept constantly in mind with regard to the future working of the division, as extensive emigrations of the already scanty population would be a lamentable contingency to be avoided at all cost if the forests are to be protected from fire. In *Gōdāvari Lower*, the Koyas and Reddis in the Polavarm and Yellavaram Divisions were employed in fire and general protection of the forests and in road and building works. They evinced considerable interest in forest matters as they were not only liberally rewarded but were allowed several concessions in return for their services. In *Kurnool East*, the conduct of the Chenchus was on the whole satisfactory. They were employed on various forest works such as collection of minor forest produce, line cutting, fire protection, preparation of agricultural implements, spokes and felloes, fashioning timber, preparing bamboo splits, collecting tangedu bark, construction of foot-paths and bridle paths and bunding up of streams. The District Forest Officer considers that in future the Chenchus will do any forest work which the ordinary village labourers without any technical skill can perform. The payment made to the Chenchus during the year for different kinds of work detailed above amounted to Rs. 19,651. In addition to it 112 men were engaged as fire-patrols, six as bungalow watchers and five as reserve watchers and the amount earned by them as wages amounted to Rs. 5,212. Thus the total amount paid to Chenchus on account of works and wages was Rs. 24,863. From this the District Forest Officer concludes "it will be apparent that the great majority of the Chenchus could not have found time to disturb the public peace and hence it is only natural to suppose that crimes must have appreciably diminished." Collector's remarks: "The sum shown as spent in payments to Chenchus is considerable, practically quarter of a lakh. As no particulars of the number of hands employed or the period of employment are given in the report, it is not possible to judge of the value of their labour or to institute a comparison from the point of view of economy, of the advantage or disadvantage of employing them rather than other class of labourers. In view of the alleged "pampering" of the Chenchus by the department it would be well to go into these matters more fully in the report. On the whole Mr. Madan has made very creditable efforts to keep his Chenchus employed, though it is doubtful whether he is not too sanguine in inferring that an appreciable decrease of crime has resulted. It may be possible to take further steps in the direction of settling the Chenchus on the land, providing plough bullocks, etc., without waiting for the final orders of Government on recommendations in Mr. Hood's report." I am entirely in accord with the Collector's views. In *Kurnool South*, the Chenchus at Ahobilam were employed on fire protection works and cultural operations. All the able-bodied men at Ahobilam, Baireni, Mahanandy and Isukagundam were as usual

employed as fire-patrols. In *Kurnool West*, the Chenchus were employed in the plantations in other works such as felling work, rough road-making and bunding hill streams. It is expected that plantation work will come to an end in 1916–17 as further development is restricted by scarcity of water, and it is necessary therefore to find them some other occupation. The District Forest Officer states that the Chenchus seem to prefer bunding work to other employment provided that the work spot is not too far from their gudems. I am therefore sanctioning funds for this purpose as far as the present financial situation will permit. The District Forest Officer considers that lac cultivation will be still more attractive besides being directly remunerative. As the District Forest Officer points out there is little doubt that field cultivation is the only real means of settling them and provided that this can be established without undue sacrifice of the forest, it is the object to be aimed at. Mr. Clear also says "It is proposed to grant future rewards to Chenchus for regular work throughout the year, which will include helping to put out fires. It is thought that this system will tend to discourage wilful incendiarism, as failure to turn out to extinguish fires will involve forfeiture of rewards otherwise earned by regular work. As matters stand at present the promise of rewards for fire protection alone is not sufficient to induce Chenchus to desist from their customary firing." I agree with this view. The District Forest Officer further reports that "it has been a long-established custom for the Chenchus of Nagaluti, Pecheruvu and Sriselam to collect metta fees from pilgrims attending the Sivaratri and Ugathi festivals at Sriselam in exchange for certain imaginary services performed. This year the collection was prohibited by the Police on the ground that it was blackmail. The direct result has been a recrudescence of dacoities and other crimes and Chenchus affected are now more out of hand than they have been for several years. This precipitate action is much to be regretted. Had the matter been carefully considered after attendance at the festival by responsible officers and fully discussed with the leading Chenchus there is little doubt that a satisfactory arrangement by which the practice should be discontinued from next year onwards could have been arrived at. The position is much worse now than it was before the festival and it will be a matter of considerable difficulty to regain the confidence of the Chenchus concerned." On this the Collector remarks: "The Chenchu question is pressing. The appointment of a special officer proposed by Mr. Vernon is most desirable. No orders have yet been received from Government. The attempt to stop the mettas was made without consulting me and was ill-advised. It has led to reprisals on the part of the Chenchus, particularly on the West. Mr. Clear's suggestion is sound; but the payments to the Chenchus should be made conditional not only on their doing good forest work, but on their general good behaviour refraining from crime. In the East division they have done a good deal of work for the department in splitting bamboos, etc. It does not appear whether anything of this sort has been devised in the West. It is suggested that, without waiting for orders on Mr. Hood's report as a whole, steps be taken to start them on agriculture. Another matter which should be taken up is the widening and straightening of the pilgrims path from Nagaluti. The Chenchu schools on the present lines are useless."

225. *Cultivation in reserved forests.*—In *Vizagapatam* an area of 57·50 acres in Chintapalli reserve continued to be under cultivation. This reserve was, however, handed over to the control of the Agency Revenue Department. In *Kurnool East* in addition to the land granted to the Chenchus in previous years, 5 acres were granted to a Sugali of Murikimallapenta during the year on the condition that he should help the Chenchus of that gudem with bullocks whenever required for ploughing their lands. The Chenchus of only three gudems had actually cultivated the lands granted to them Great difficulty is felt by them in obtaining good ploughing bullocks. In *Kurnool South*, the 4 acres of land granted last year to the Police metta talaiyaris at Payalakanama were not cultivated. Twenty acres of land were assigned to the settlement of cartmen near Chelama in order to induce them to continue in the settlement since it enhances the value of all coupes in the locality besides affording convenience in the procuring of carts locally for touring or other purposes. In *Kurnool West* the lease of the two plots of land in the Gadidamadugu reserve to the Christians of that place was renewed. I should like to see all Forest Guards and Watchers, who live in the forests, provided with land to cultivate. It

would give them a stake in the beat and would render a transfer doubly penal. There are obvious and inherent difficulties, but the District Forest Officer, *Kurnool South*, has undertaken to make an attempt at Chelama.

226. *Mining and prospecting.*—A certain quantity of graphite was collected from the old Pedakonda graphite mines in *Upper Gōdāvari* and sent to the Director of Industries at his request. In *Kurnool South* the license for prospecting for diamonds in the Ramavaram reserve still continued unworked and the period of lease also terminated in December 1915. As the licensee attributed to the war his inability to start work, the Collector addressed the Board to extend the lease. In *Kurnool West* Messrs. Ghose and Wellar were allowed to remove small quantities of barytes from Yerramalais for experimental purposes.

227. *Realization of revenue from the usufruct of toddy-yielding trees on Government waste and poramboke lands.*—The total revenue realized was Rs. 40,019 against Rs. 31,950 in the previous year.

(*c*) LIVE AND DEAD STOCK.

228. *Live-stock*—(*a*) *Elephants.*—All the elephants in the circle except one in *Ganjām* continued to keep fairly good health. But their condition is poor when compared with that of the Western Circle elephants engaged on hard and remunerative work. The feeding has been extravagant but a change of diet is now being tried in *Ganjām*, and I hope to introduce this into other divisions also. The local conditions of the Northern Circle render almost impossible the adequate control of the elephants by the District Forest Officer. The Board sanctioned the sale of a sick elephant in *Ganjām*; but no purchaser has yet been found.

(*b*) *Bullocks and buffaloes.*—In *Kurnool East* one buffalo was purchased for Rs. 20 to carry water for the Chenchus of Chintala gudem during summer. In *Kurnool South* there were ten bullocks at the commencement of the year, of which three were sold and one died, and in *Kurnool West* ten pairs of bullocks were maintained. The bullocks in *Kurnool South* were let on hire to contractors and officials.

Inventory of valuable stock.—Stock registers were maintained and verified in all the divisions. The hay press in the Direction office was transferred to the Southern Circle, Bombay.

Rain gauges.—Rain gauges were maintained and readings recorded in all divisions. In *Kurnool South* two new stations at Sandrapodu and Chintalapalli were opened. A station is required at the Tunnel bungalow, *Kurnool South*.

(*d*) SUITS.

229. In *Gōdāvari Upper* the notice of a suit given by a late contractor in the previous year was settled by compromise. Large issues were involved and the investigation resulted in the unearthing of somewhat unsavoury past history. The appeal in the Privy Council against the settlement of the Coringa Extension in *Gōdāvari Lower* has since been decided in favour of Government.

230. *Classification of forests.*—The classification of reserved forests in all divisions except *Kurnool East* and *South* was completed.

231. *Panchayat system.*—In *Kistna* division five reserves were placed under panchayat management. The working of three reserves is reported to be satisfactory and of the remaining two unsatisfactory. Proposals for the formation of a panchayat in *Gōdāvari Lower* are pending with the Board. In *Kurnool East* proposals for forming a panchayat are pending inspection of the locality by the Collector and the Conservator. In *Ganjām* proposals for two panchayats were pending with the District Forest Officer. But it is proposed now to transfer these two areas to village forests The District Forest Officer, *Vizagapatam*, has been requested to consider the advisability of starting panchayats in the Sarvasiddhi range. Special attention will in the present year be paid to the further development of the panchayat system.

232. *Improvement of water-supply and grazing facilities in Government grazing grounds.*—In *Gōdāvari Lower* two tanks were improved and a well which was commenced last year was completed; in *Kistna* one kunta in one of the reserves under panchayat management was repaired; in *Kurnool East* two kuntas and two wells were improved; besides these considerable number of forest springs were cleared and

deepened ; in *Kurnool South* two kuntas were repaired ; in *Kurnool West* no works were undertaken on account of the war. In the remaining divisions no special measures in this direction are considered necessary at present.

233. *Opening small fuel coupes for rural supply wherever an effective demand exists or can be stimulated into existence.*—Coupes sold to contractors, private forests and unreserved lands meet the wants of the people who live near forests. But in distant towns the price of fuel is undoubtedly high as compared with that of a few years ago when it was sold at far below the market value. The problem would solve itself if Municipalities could be induced to raise plantations of casuarina, etc. Nor am I convinced that the prices are very much above what they should be considering the present average value of fuel in the Presidency and the great rise in the price of the agriculturist's crops. I have lately attended conferences in the *Kurnool* district to deal with this question, of which the solution seems now more hopeful.

234. *Patrol system.*—The system has been introduced in all divisions except *Upper Gōdāvari* and its working is reported to be satisfactory in *Kurnool East* and *South.* The *sine qua non* of the system is undoubtedly the *confidential* issue of orders to the patrol every week. This condition had not been complied within more than one division last year. Besides the patrol at least one guard is also required for each area to form a nucleus of assistance, information and supplies.

Central Circle.

235. *Realizations of revenue from the usufruct of toddy-yielding trees on Government wastes and poramboke lands.*—Rupees 74,589 was realized against Rs. 51,407 of last year. The increase was due to increase in the rates in *Anantapur*, *Guntūr*, *Nellore* and *Chittoor* districts.

236. *Measures adopted to encourage the growth of manure leaf-yielding trees and shrubs.*—No measures were adopted during the year, as such operations had been ordered to be discontinued.

237. *Timber Transit rules.*—The rules which are in force in all districts except *Bellary*, *Anantapur*, *Nellore* and *Chingleput* are reported to have worked satisfactorily. The introduction of Transit rules into the last named four districts is, the Conservator considers, desirable. Without them no efficient check of major forest produce is possible with the establishment at command.

238. *Rules under section* 26 *of the Forest Act*—have worked satisfactorily and there was no complaint or abuse brought to light.

239. *Inventory of valuable stock.*—The stock registers are reported to have been maintained and verified in all districts.

240. *Rain gauges*—were maintained in all districts except *Anantapur*, *East Cuddapah* and *Chittoor*.

241. *Cultivation in reserved forests with a view to afforestation.*—No new reserves were leased out in *Bellary*. The result of sowing of seeds in Adōni range is reported to be fairly satisfactory. Portions of Badanahal reserve were re-sown during the year but the operation was a failure. In *West Cuddapah* several plots were assigned to the Police ghat talaiyaris for cultivation.

242. *Specimens.*—Two maunds and 34 seers of red sander pieces from *Cuddapah East* were sent to the Director of Industries, United Provinces, Cawnpore, for experimental purposes in connection with the extraction of "santalin" dye, and his report is awaited.

243. *Suits.*—A suit against a tangedu bark contractor for the recovery of lease amount in *Anantapur* and a suit against shrotriemdar of Musalreddipalle agraharam in *East Cuddapah* district are pending in the courts.

244. *Live-stock.*—Out of the four buffaloes in *Chittoor* district, one died during the year and two are reported to be very old and past work.

245. *Mining.*—In *Bellary*, the mining lease granted to Mr. A. Ghouse of Dhone for 30 years continued to be in force. Mr. A. D. Sanders, Agent, General Sandur Mining Company, for prospecting iron and manganese ore was granted a license to prospect it in survey Nos. 18 and 14 of Tonasigeri reserved forest of Kudligi taluk. An application from Messrs. A. M. Jeevanjee & Co. of Bombay for a prospecting license to prospect mica and other minerals in Bellekal reserve, Hospet range, was

recorded as the applicant failed to furnish certain information called for. In *Anantapur* no new licenses for prospecting gold were given; no operation was in progress in *Guntūr* district.

NELLORE MICA AND MICA MINES.

Applications.—Thirty-three applications were pending disposal at the beginning of the year. Forty-two applications were received during the year making a total of 75. Of this 51 were disposed of and 24 were pending at the close of the year.

Mines in Government lands (State mines).—There were 53 mining leases in force at the beginning of the year including the lease of Samarskite and the nine cancelled mines of Mr. A. Subba Nayudu now left in charge of the Official Receiver appointed by the court. Six leases were relinquished during the year. One new lease was sanctioned during the year. Thus the number of leases in force at the end of the year excluding the nine cancelled leases of Mr. A. Subba Nayudu, was 39.

Prospecting licenses.—Twenty-eight licenses were in force during the year for varying periods.

Patta land mines (shared mines).—The year opened with 27 agreements in force of which five were relinquished and one new lease was granted. The number at the end of the year was 23. The "Shah" and "Pallimitta" mines of Messrs. Hajee Muhammad Badsha Sahib & Co., the "Lakshminarayana" and "Sri Krishna" mines of Messrs. F. F. Christian & Co., the "Pattabhirama" of Y. Audamma, the "Bhupathi" mine of Mr. Y. Subrahmanyam, the "Kubera" patta land mine of Mr. Vissa Lakshminarasayya, "Seetharama" of Turimerla of the Sankara Mining Syndicate, continued to work steadily. The "E" and "F" mines of Talupur, the "Palameni" mine at Chaganam and the "Tallabodu" mine under the management of the Official Receiver reported to have produced good results.

Mines in permanently-settled estates (private mines).—There were 23 mines in the shrotriem and zamindari land yielding 82,542 lb. of mica valued at Rs. 68,294. Oorupalli, Chukka and Tammamani mines are the best.

Illicit mining.—No cases during the year under report.

Outturn and royalty.—There has been rise in the yield of mica during the year as detailed in the margin which is due to the perceptible revival of the mica industry during the year. No other mineral was worked.

Years.		Quantity.		Royalty.
		LB.	OZ.	RS.
1914–15	...	331,568	3	14,847
1915–16	...	505,037	3	15,985

Financial results.—The revenue realized was Rs. 21,468 against Rs. 19,122 of previous year and the expenditure Rs. 6,042 against Rs. 6,617. The increase under revenue is due to increased outturn of mica.

Labour.—One thousand eight hundred and seventy-nine persons were employed in mining against 2,974 of previous year. Wages were the same as in last year with a slight increase towards the latter part of the year.

Accidents.—There was only one accident at the "F" mine in which one man was seriously injured.

Ventilation and lighting in tunnels.—No change.

Inspection by superior officers.—The Inspector of mines did not inspect any of the mines. The District Forest Officer inspected three, Revenue Divisional Officer, Kāvali, three, and District Medical and Sanitary Officer, four.

Prospect of industry.—Almost all the old mines continue to yield a steady supply. The high value of the mica market is now inducing miners and merchants to direct their attention to the enterprise and it is hoped that favourable results will come. Several applications have been received for new plots and the mica industry has perceptibly improved especially during the latter part of the year.

RECOMMENDATIONS OF THE FOREST COMMITTEE.

(*a*) *Classification of forests.*

246. The classification of the forests is complete in all districts. But some changes occurred in *Chingleput* district classification. Classification of certain reserves in Palmaner and Madanapalle of *Chittoor* district requires revision and proposals will be submitted by the District Forest Officer in due course. It is also possible that in some other districts classification will need further revision.

(*b*) *Constitution of forest panchayats.*

247. During the year four panchayats were formed in *Anantapur*, 15 in *Guntūr*, 13 in *West Cuddapah* and 19 in *Chittoor* district.

About half the panchayats are reported to be working satisfactorily. Three in *Anantapur*, five in *West Cuddapah*, one in *Nellore*, three in *Chingleput* and fourteen in *Chittoor*, the working was not satisfactory. Three panchayats were dissolved on account of mismanagement in *Chingleput* district. It is reported that in *Guntūr* district with regard to some of the reserves for which assessment was fixed in Board's Proceedings Forest No. 14, dated 21st January 1916, it was found impracticable to form panchayats. Several panchayats formed in *Bellary* district were sanctioned by Board after the close of the year. The manner in which panchayats have been formed in *Bellary* district has been specially reported to the Board and in the Conservator's opinion leaves much to be desired. In paragraph 49 of the Forest Committee's report certain advice was given as to the manner in which classification of reserves should be undertaken and the following sentences close that paragraph :—

"It is observed that this classification will have to be made with great care and with full consideration of all the circumstances. Great common sense will be necessary on the part of the officers and they will have to be on their guard against an excessively professional point of view on the one hand and any tendency to excessive laxity on the other."

The Conservator considers that in some instances, owing to classification having been made too hurriedly and without due consideration on the lines recommended by the Forest Committee, the classification is not altogether satisfactory and some revisions will be necessary.

Again in paragraph 10 of Order No. 3020, Revenue, dated 13th October 1913, the Government stated as follows :—

"In many villages it would probably be difficult to find cattle owners possessed of the requisite qualifications in sufficient numbers to form a panchayat, while there would be no substitutes in case of their supersession. It would be a grave misfortune if after trial any considerable proportion of forest panchayats were found unequal to the duties assigned to them. Such a result would shake the hope that a means of relief from some unsatisfactory features of forest administration had been devised."

And in paragraph 11 of the same Government order it was stated "while therefore Government accept the Committee's proposals that an experiment should be made in the constitution of forest panchayats they consider that very great care will be necessary in selecting the villages for experiment. The Revenue Divisional Officer and the Forest Officer who are entrusted with the duty of classifying the forests should be required to examine the conditions prevailing in each forest village with special regard to their adaptability to panchayat administration." With the advice given above it is impossible to take any exception, but unfortunately in many instances it has not been followed either in the matter of classification or in the formation of Panchayats. The result is, in the Conservator's opinion, that many of the Panchayats which have been formed are doomed to almost certain failure from the very beginning. In some districts the mere fact that Reserves have been classified under Class V has "ipso facto" been deemed sufficient justification to enforce them under Panchayat management, and this, it is submitted, was not the intention of the Forest Committee and still less was it that of the Government. It is only in the hope that this dangerous course may be held up and that panchayat management may yet be given a reasonable and fair trial that the Conservator desires to bring this matter prominently to the notice of the Board and Government.

Turning now to a more pleasant branch of the subject the Conservator desires also to place prominently forward the progress which has been made in the Nellore district in the introduction of the "Kancha" system of grazing. With regard to all the Forest Reserves of this district the "Kancha" system is now practically in force, and in many instances the Kanchadar undertakes the protection of our "closed" areas for us in addition to the areas he is allowed to graze a limited number of cattle in for certain months of the year. The Kanchadar is in fact very often an informal panchayat itself and so rapid has the progress made been, that during the current year Government has been pleased to sanction the employment of a special "Kancha"

officer of the grade of a Deputy Collector to tour in the Nellore district with a view of explaining fully to the people the advantages of the system and the innovations we are gradually grafting on to the system, and so far, as far as the Conservator is able to judge, the Kancha Special officer has been doing admirably useful work with excellent results. The Collector of Nellore in forwarding the District Forest Officer's Administration Report for the year writes as follows :—

"Forwarded.—The year is remarkable in the results achieved by the Kancha system of grazing. Revenue has gone up : forest subordinates have been withdrawn : there has been less friction ; offences have considerably declined ; informal panchayats are being formed. My best thanks are due to Mr. Arbuthnot for his sympathetic initiation and ceaseless watch over the system ; also to the Conservator for his ready sanction of all measures intended for the development of the policy. The system is being further developed in the current fasli.

I cannot however help noticing that the return to the public against the increased revenue is not adequate. I know the Conservator is keen on fences. Good fences are an absolute necessity for rendering the Kancha system workable. I think more attention should be paid to the putting up of good fences."

The Conservator takes this opportunity of tendering his best thanks to the Collector of Nellore for his unfailing advice and assistance readily and freely given for the encouragement of the Kancha system in the district. He fully agrees with paragraph 2 of the Collector's endorsement, and more money should and will be spent on fencing the Kancha areas. Unfortunately the department is so put to it for establishment that it has been so far unable to spend more on this important work during the year but that is a situation which cannot last for ever and when the long overdue re-organization of the Department is sanctioned the work will be more vigorously taken up. Meanwhile we must do our best to push on with it as best we can. Now here in this Kancha system we have the germ of a system which will, if fostered carefully, spontaneously lead to the correct panchayat system. In other districts, it appears to the Conservator, panchayats are being forced on the people when neither they nor their conditions are ripe for them. Herein lies a danger that will ruin the prospects of the system unless more care is exercised than hitherto.

(c) Opening of fuel coupes for rural supply.

248. Coupes have been opened wherever there is local demand and they were sold to contractors for felling. The system is working well enough, but in some localities it needs more intelligent supervision than has been given.

(d) The patrol system.

249. The system is still in the experimental stage and is being given a trial in all districts except *Anantapur*, *Chittoor* and *Chingleput*. The work of the patrol parties in *Guntūr*, *West* and *East Cuddapah* is reported to be satisfactory.

(e) Inducement to villagers to aid in forest conservancy.

250. In addition to extending the "Kancha" system in *Nellore* referred to under (*b*), nothing more of any practical importance was done in the Circle during the year under report. In *Nellore* free removal of grass by ryots of certain adjoining villages of Rapur, Udayagiri and Kanigiri ranges was allowed for which they are to prevent fires spreading in the forests. In *West* and *East Cuddapah* the grazing fees for certain reserves have been raised for 1916-17 as the ryots of the adjoining villages refused to render help in putting out fires. This action is a regrettable necessity in such cases.

(f) Improvement of water-supply and grazing facilities in Government grazing grounds (Board's Proceedings, Forest No. 125, dated 29th June 1914).

251. In *Anantapur*, new wells were dug there in reserves and one existing well deepened. In *Guntūr* as usual the graziers were allowed to repair the existing kuntas. The existing wells in *West Cuddapah* and existing ponds in *East Cuddapah* and *Nellore* were repaired. In *Chingleput* concession was granted to the ryots of Tirumukkadu to enter Acharapakkam reserve and repair the tank for the cattle. Nothing was done in the remaining two districts.

(g) *Sale of plantations.*

252. In *Guntūr*, 4·94 acres in Kanuparti block II casuarina plantation was sold. In *East Cuddapah*, the growth in an area of 2,299 acres in Reddiapalli, Pullampet and Mittamedipalli plantations were sold. In *Nellore* an extent of 558 acres in Utukur and Varini plantations, was sold during the year. In *Chittoor* Bolampet tope of 18 acres was sold.

Southern Circle.

253. *Realization of Revenue from the usufruct of toddy-yielding trees.*—The revenue realised from this source shows an increase of Rs. 4,029 over the previous year, due to the enhancement of fees (B.P. Forest No. 164, dated 17th August 1914). The fixed fee system continued to be in force except in Tinnevelly and Madura. In South Salem the usufruct of trees not taken up under the fixed fee system was as usual leased out and a sum of Rs. 3,099 was realised against Rs. 3,276 in the previous year.

254. *Measures adopted to encourage the growth of manure-leaf yielding trees and shrubs.*—No operations for the growing of manure-leaf yielding species were undertaken by the department during the year. This is however a matter of great importance for the Forest Department in this Circle. In spite of large areas of unreserves in the Attūr taluk the forests of the Kalrayens, Pachamalais and Kollimalais are still being subjected to the depredations of manure-leaf cutters which is fatal to their use as conservation forests. Daincha has been established successfully in some villages in South Salem and the more this can be encouraged the better is the department served. In addition the *Tephrosia Purpurea*, one of the most valuable of the green manures, is found in large quantities in the dry fields at the base of the Pachamalais and Kollimalais. The department cannot afford to be apathetic in this matter and it is therefore a matter for regret that the reports from South Salem and Trichinopoly have practically nothing of any value as to the steps taken to bring this to the notice of the ryots. If such cultivation is improved and extended there is no doubt that the forests will be relieved of an enormous burden which they ought not to be compelled to bear.

In North Salem the manure-leaf farm at Giddagaranpatti (50 acres) was leased for Rs. 33.

255. *Grant of cowles for the formation of casuarina plantations in sandy areas* —Nil. The planting of casuarina on an extensive scale continues in the disafforested lands in South Arcot.

256. *Cultivation in reserved forests.*—Previous year's leases were renewed in South Vellore, North and South Salem and Trichinopoly. In Madura the lands on the Palnis continue to be cultivated under muchilikas with cardamom and in some cases coffee plantations.

257. *Improvement of water-supply in State forests.*—Considerable progress was made in *North Vellore.* Twenty old wells were improved at a cost of Rs. 609 and the Gillman Bhavi in Synagunta reserve completed for Rs. 63. The streams in five different reserves were bunded at a cost of Rs. 485.

In *South Vellore* the Director of Industries is carrying out boring operations with a view to the introduction of "Tube Wells." The introduction of these wells may go far towards the improvement of the drinking water-supply and in consequence the reduction of fever on the Javadis.

In *North Salem* tanks in the Jowlagiri and Thally grazing blocks were repaired, but in the case of five other tanks repairs could not be completed.

A water-trough was constructed in the Morappur reserve.

No progress in this matter was made in other districts and it is evident that this important matter deserves more attention.

258. *Supply of forest produce to meet the wants of the people.*—Under the contract system in force, contractors are bound by their agreements to supply the wants of the people at reasonable rates. The issue of permits at seigniorage rates for babul trees for agricultural implements was continued in Tinnevelly.

259. *Sale of fuel at the edge of forests.*—This was generally attended to by coupe contractors. The fuel felled departmentally in the Musiri range of Trichinopoly district was disposed of at the edge of the forest.

260. *Arrangements made for the transfer of sale depots to private agency.*—The contract system is universal and contractors have opened depots in almost all the important towns.

261. *Free removal of grass.*—This has been alluded to in paragraph 122 supra. The concession was as usual largely availed of in North Vellore. In South Vellore free removal was permitted from December to February.

262. *Hill tribes.*—As usual our dealings with the Malayalis in the Chitteris of South Salem and in the Javadis of North and South Vellore have been successful and they have given the department valuable assistance in fire protection as also the protection of sandal. It is a very satisfactory feature of the South Vellore administration that the District Forest Officer is able to report that on the Javadis goats have been sold off in hundreds and the Collector of the district is able to add his testimony as to the tactful treatment of the hill men by the District Forest Officer.

A great deal however still remains to be done as in South Salem the Malayalis of the Kalrayens, influenced by jaghirdars, have taken to smuggling sandal into South Arcot. In the Pachamalais and Kollimalais of South Salem and Trichinopoly very insufficient attention has been paid to this matter. Thousands of sandal trees have been destroyed by the pernicious system of ponnakad cultivation and although an occasional Malayali has been engaged as a guard or watcher no regular attempts have been made to win over the hill men to assist in protection. On the other hand the Malayalis have been prosecuted for ponnakad in no less than eighteen cases.

These hills have however recently been inspected by the Forest Commissioner and the Conservator and it is to be hoped that a more suitable method of dealing with the hill-man may shortly be instituted.

In Tinnevelly the attempt to make a Palayar settlement in Srīvilliputtūr range failed and the settlement was deserted. The Kani settlement near Kariar was not extended.

263. *Prospecting licenses.*—No license was granted during the year. In South Vellore Messrs. Gaudart & Co. of Pondicherry applied for a license for prospecting for minerals in the Ponniar reserve and the Collector has been addressed for the grant of a license. In South Salem Mr. H. W. Perry, Late Acting Deputy Traffic Manager, South Indian Railway, was granted permission to explore in the reserves of the district.

264. *Timber and sandalwood transit rules.*—The rules are reported to have worked satisfactorily during the year. In South Salem no property mark was registered, but three cases were charged for the infringement of the sandalwood transit rules. In Trichinopoly out of three applications for the registration of property marks one was registered, one is under enquiry and the third was rejected.

265. *Rules under sections* 26 *and* 32 *of the Forest Act.*—The rules continued to work satisfactorily and the privileges were generally availed of without any complaint. It is reported from North Salem that to a small extent there has been abuse of the concession in the cutting of classified trees.

The application of the Zamindar of Seitur, guardian to the minor Zamindar of Elumalai, referred to in the last year's report was disposed of by extending the rules under section 26 of the Act to the forest and waste lands in the Elumalai Zamindari.

266. *Control of unreserves by the Forest Department.*—The entire transfer of the Land Revenue administration of the Puliyur and Kambugudi enclosures on the Javadis in the Tiruppattūr taluk was proposed during the year and is pending final orders of Government.

267. *Rules regarding the levy of composition fees.* —The rules were attended to in fixing the composition fees.

268. *Arrangements made in holding the villagers adjacent to particular forests responsible for the protection of those forests by dividing the village and blocks of forests concerned.*—In South Vellore plans showing areas assigned to each Javadi hamlet for special protection by the Malayalis resident in those hamlets were prepared during the year for a considerable portion of the Javadis.

In regard to the rest of the district a notification was published towards the close of the year with the approval of the Collector defining the villages that will be held responsible for forest offences on any large scale, in definite areas of forests adjoining their villages. In other divisions little has been done in this direction.

Live and Dead Stock.

269. *Inventory of valuable stock.*—Stock registers were maintained in all districts and verified at inspections. The total value of the dead stock in the Circle at the end of the year was Rs. 4,32,158.

270. *Rain gauges.*—Readings were recorded in all the rain gauge stations.

271. *Specimens.*—Toys, walking sticks, pencils and sandalwood specimens were sent from North and South Vellore and Trichinopoly to the Madras Park Fair Exhibition.

Madura sent a specimen of *Zizyphus Xylopyra* dye to the Director of Industries and three pine specimens to the Principal of the Engineering College to be tested. Some herbarium specimens were sent to the Gass Museum and to the Forest Botanist.

Specimens of sandalwood from South Vellore, North and South Salem were despatched to the Forest Chemist at Dehra Dun for determination of their oil value.

Previous year's Suits.

272. *North Vellore.*—The boundary dispute in Gundalapalle reserve is still pending.

South Arcot.—The suit filed by a coupe contractor in the Tanjore district referred to in the last year's report was dismissed with costs.

Trichinopoly.—The appeal preferred by Arunachela Reddi to the High Court and the suit filed by the Kulitalai pattadar are still pending.

Madura.— The suit filed by a tank-bed contractor was decided against Government and an appeal preferred to the District Court.

Tinnevelly.—The Kuttalam water fall appeal is still pending in the Privy Council.

New Suits.

273. *South Salem.*—The question of the ownership of the range of hills known as the Neiyamalais and the adjoining hill and valley in the Salem and Attūr taluks is pending enquiry by the Revenue Divisional officer, Salem, who has been appointed as a survey officer for the adjudication of the claims of Government and the Mittadar of Sekkadipatti.

Forest Committee's Report.

274. *Classification of reserves.*—The classification of reserves is practically complete in this circle. In South Arcot the Collector is considering the reclassification of some of the reserves and in South Salem the final classification was submitted shortly after the close of the year.

Panchayat system.—The progress in panchayats has not been very satisfactory. Many mistakes were made at the start such as handing over portions of a reserve to panchayats, failure to collect assessments and mistakes in the area handed over. These are by degrees being rectified. There has moreover been no keenness on the part of graziers to undertake management.

In addition to those of last year, panchayats for three reserves in South Arcot, one reserve in South Salem and six reserves in Trichinopoly have been formed.

The South Arcot panchayats are said to be run at a loss but an examination of their accounts shows that no trouble is taken to collect grazing fees.

The patrol system.—The system was continued in North Vellore, South Arcot and South Salem but it cannot be pronounced to be successful on account of the paucity of establishment.

Western Circle.

275. *Realization of revenue from the usufruct of toddy-yielding trees, etc.*—Rupees 1,203 were realized in *South Canara* against Rs. 1,531 in the previous year. Some small amounts were realized in *Kollegal* and *Central Coimbatore*. The right to extract toddy from palmyras in the forests of one of the ranges in *South Coimbatore*, was leased out for three years at Rs. 60 per annum. There were no receipts in other districts.

276. *Measures adopted to encourage the growth of manure-leaf-yielding trees and shrubs.*—No action was taken in this direction nor was any required as the demand was met from other than reserved forests and lands.

277. *Supply of forest produce to meet the wants of the people.*—As in previous years the people in *South Canara* were allowed to remove grass free from reserved forests for thatching and fodder. This concession was not abused. Timber was also retailed from one of the depots. The private forests and unreserved lands supply the wants in *Malabar*. In the *Nilgiris* the issue of permits for small timber, fuel, bamboos, etc., was continued. The Badagas got their fuel at the usual nominal fee of Re. 1 a house for the year. The removal of brushwood at one anna per head load from the coupes under working was allowed. The attempt to sell firewood to the poor cheaper than the usual selling rate was abandoned as it was found that the fuel so purchased was being sold at the market-rate outside the depot. The departmental supply of fuel to the public at Ootacamund and Coonoor was further developed and a large quantity was disposed of. Firewood and charcoal were also sold in retail in depots. *Kollegal*—Contractors purchased fuel from the department and retailed in depots opened in Kollegal town; the people elsewhere got their requirements from unreserved lands. In the other divisions of *Coimbatore* the supply of forest produce was left to contractors and there were no complaints. Small timber and agricultural implements were retailed from forest depots in the *North* division and brake poles were sold to the cartmen frequenting the ghat roads in the *North* and *South* divisions. The removal of brushwood in head loads from coupes under working was continued in the *Central* division.

278. (*a*) *The working of the forest panchayats.*—No new panchayat was approved during the year. The areas managed by panchayats are given below :—

District.	Number of reserved forests managed by panchayats.	Area in acres.	Assessment imposed.	Number of panchayats managing the areas.
			RS.	
Mangalore, North	1	89·34	..	1
Central Coimbatore	7	4,423·08	1,074	12
South Coimbatore	4	1,874·54	185	2
Total ..	12	6,386·96	1,259	15

Besides the above, some areas of unreserved lands (extent not reported) in *Mangalore, North*, and *North Coimbatore* were also under such management. In *Mangalore, North*, the panchayat discharged its functions satisfactorily and the forest has not in any way deteriorated. In *Central Coimbatore*, four of the reserves were overgrazed. Ten of the panchayats took an interest in their duties and carried out works of improvement, chiefly removal of prickly-pear and sowing grass seeds; the defaulters were the panchayats in charge of the Arachalur and Tambikalayam reserves. In *South Coimbatore*, the members of the panchayat for Udiyur forest failed to realize their responsibilities and the management was unsatisfactory. The panchayat for the other four reserves carried out repairs to a cart-track and cleared prickly-pear from portions of two reserves. Regular accounts for receipts and expenditure were not maintained by the two panchayats. The management of the unreserved lands in *North Coimbatore* is well reported on.

(*b*) *Opening of small coupes for rural supply wherever an effective demand exists or can be stimulated into existence.*—There is no demand for such coupes as the demand is met from coupes sold to contractors and other sources.

(*c*) *Measures adopted for improving the water-supply in Government grazing grounds and the facilities for grazing and pasturage.*—No measures are necessary in the West Coast districts and in the *Nilgiris*. Nothing was done in *Kollegal* and *North*

Coimbatore for want of funds and in *South Coimbatore* pending settlement of the grazing question. In *Central Coimbatore*, the grazing grounds lie within easy reach of the villages and in the forests where cattle are penned there is no scarcity for water.

(*d*) *System of patrol by a gang of subordinates.*—The system was not introduced in any of the districts except *Central Coimbatore*, owing to the paucity of establishment. It was introduced in *Central Coimbatore* at the close of the year as a tentative measure.

279. *Grant of cowles for the formation of casuarina plantations in sandy areas.*—Nil. Sandy areas are scarce.

280. *Rules under the Forest Act*—(*a*) *Timber transit rules.*—The rules in *South Canara*, *North Malabar* and *Coimbatore* worked satisfactorily. The revised rules for *South Malabar* were sanctioned and introduced from 1st April 1916.

(*b*) *Rules under section* 26 *of the Forest Act.*—The rules worked satisfactorily and no abuse of the privileges was brought to notice. The area of unreserved lands under the control of the Forest Department was 489 acres in *North Malabar* and 863 acres in *South Malabar*. Two hundred and seventy-eight acres of tank-beds in *Central Coimbatore* were transferred to the control of the Revenue Department. The transfer of 733 acres in *South Malabar* to the same control was sanctioned, but was not effected before the close of the year.

(*c*) *Other rules.*—The sandalwood transit rules in *South Canara*, *Kollegal* and *North Coimbatore* and the shooting and fishing rules in the *Nilgiris* worked well.

281. *Hill tribes.*—In *South Canara*, the *Kudibis* supplied labour for the manufacture of catechu, fire protection, creeper cutting and improvement fellings. The *Kurichiyars* in *North Malabar* supplied labour for the department on a prescribed daily wage and some of them were granted 3 acres in the unreserved lands under the control of the department for ponam cultivation at an annual rent of Rs. 2-8-0 per acre. Certain *Mulcers* in *South Malabar* are employed as watchers and lands for cultivation is being given them. In the *Nilgiris*, the *Kurumbars* in the Mudumalai and Benne forests continued to work on fire protection and as elephant attendants. It is becoming increasingly difficult to secure their labour as work on private estates where both sexes earn wages is more attractive. Ten acres in Benne forest were allotted to certain *Kurumbars* for cultivation. A colony of *Irulars* in the southern slopes was evicted as they failed to supply labour for demarcating the new district boundary. The *Sholagars* in *Kollegal* and *North Coimbatore* continued to supply labour to the department on payment and were granted lands in reserves for cultivation free of rent; the extent leased out was 340 and 1,402 acres respectively. The hill tribes (*Irulars*) in *Central Coimbatore* were granted leases of lands in reserves for cultivation on condition of their supplying labour to the department and the extent so leased out was 852 acres. In *South Coimbatore*, it is reported that the co-operation of hill tribes in the matter of providing labour for departmental works and for collecting minor produce was maintained and that the existing free leases to hill men were continued.

282. *Cultivation in reserved forests.*—The following cultivations were allowed besides those referred to in the preceding paragraph. In *South Canara*, tenant-at-will leases covering 28 acres were granted on an annual rent of Rs. 20. In *North Malabar*, 312 acres were leased for kumeri and 424 acres of wet cultivations. Some of the wet cultivations were given on payment and some free of assessment. In *South Malabar*, the lease of 4 acres in the Old Amarampalam reserved forest for paddy cultivation was renewed for another year on the usual annual rent of Rs. 10. The lease of paddy fields covering 120 acres in the New Amarampalam reserve was renewed for five years from 1st April 1916 on an annual rent of Rs. 402 against Rs. 305 realized from the previous lease. The lease for coffee cultivation in *Kollegal* continued. In *North Coimbatore*, the grant of 169 acres in Gutialattur and North Bargur reserves for cultivation on payment of rent continued. The grant of 22 acres in Palamalai reserve was cancelled considering it inadvisable to allow cultivation after the acquisition of minor enclosures. Fresh leases covering 5,731 acres for coffee cultivation on the Anamalais in *South Coimbatore* were granted during the year.

The residential settlement on the Anamalais was named "Valparai town". About 70 acres in the area of the township (234 acres) have been cleared of growth and some of the public buildings are under construction. A telegraph office has been opened. Applications for sites in the township were pending disposal and a proposal to lease out the area within the settlement which is not immediately required for settlement purposes, for cultivation of plantation products was under consideration.

Live and Dead Stock.

283. (*a*) *Elephants.*—Anthrax broke out in the elephant camp in *South Canara* and two captures of the previous year died in the kraals. As the kraals were burnt to avoid further infection, the capturing operations had to be stopped during the year. There were 13 captures and three births during the year; one was exchanged with an elephant in Ganjām; 19 were sold for Rs. 44,135, one was shot owing to infirmity, one lost and nine died; the number remaining at the close of the year was 105. The condition of the elephants is reported to be generally good. The number of deaths included three calves of which one died of irregular feeding and another of convulsion and exhaustion and the third was undeveloped, three from anthrax and three from different ailments. The Superintendent, Civil Veterinary Department, inspected the elephants in the *Nilgiris* in May 1916, but has sent in no note.

(*b*) *Bullocks and buffaloes—Bullocks.*—Six were purchased during the year. The casualties of the year were—six were sold being unfit for forest work, five killed by tigers, three condemned and destroyed and one died of old age. The number that remained at the close of the year was 55. *Buffaloes.*—The stock is now 57, four animals having died and 23 having been purchased during the year.

(*c*) *Veterinary establishment.*—Mr. F. X. Mascarenhas inspected the live-stock in different districts and continued to do good work. The Assistant Veterinary Inspector was transferred to Coorg in September 1915 and another Veterinary Assistant was deputed in his place; his work lies in *South Coimbatore.*

(*d*) *Inventory of valuable stock.*—Stock registers are reported to have been maintained and verified at inspections. The value of the live-stock and stores at the close of the year was Rs. 3,44,650 and Rs. 3,80,719 respectively.

284. *Rain-gauges*—Maintained and readings recorded. Three new stations were opened in *North Coimbatore.* One of the gauges in *Central Coimbatore* got out of order and it took some months to replace a broken bottle during which time no readings were recorded. The readings in *South Canara* continued to be unreliable.

285. *Suits.*—The Tirumalpad of Nilambur appealed to the District Court of Coimbatore against the award passed for the acquisition of the Mudumalai and Kumbarakolli leased forests and the appeal was dismissed with costs. The lessee of private forests in the Attapadi valley has preferred a second appeal to the High Court in connection with a right of way through Tadagam reserved forest in *Central Coimbatore* and it has not been disposed of. The institution of a suit against a contractor in *South Coimbatore* for the recovery of Rs. 17,355 due by him for timber purchased was sanctioned.

F. L. C. Cowley-Brown,
Conservator of Forests, Northern Circle.

H. B. Bryant,
Conservator of Forests, Central Circle.

P. M. Lushington,
Conservator of Forests, Southern Circle.

H. A. Latham,
Conservator of Forests, Western Circle.

ADMINISTRATION REPORT OF THE MADRAS FOREST COLLEGE, COIMBATORE, FOR THE YEAR 1915-16.

CHAPTER I.—CONSTITUTION.

(1) *Staff.*

1. The office of Principal was held by Mr. F. L. C. Cowley-Brown from the beginning of the year up to the 11th September 1915 and thereafter by Mr. C. E. C. Fischer, Deputy Conservator of Forests.

2. Messrs. C. B. Dawson and H. C. Bennett, Deputy Conservators of Forests, filled the posts of senior and junior imperial instructors throughout the year.

3. M.R.Ry. K. R. Venkatramanan Avargal, Extra Assistant Conservator, remained the senior provincial instructor up to the 15th July when he proceeded on privilege leave and eventually reverted to district work, after three years of work at the college, which have met with the special recognition of the Principal under whose orders he served. He was replaced by Mr. E. M. Crothers, Extra Assistant Conservator.

Mr. J. Aranha, Probationary Extra Assistant Conservator, was the second provincial instructor up to the 19th October, when, on his transfer to the Nilgiris district, Mr. R. B. Cornwell, Extra Assistant Conservator, took up that post.

4. M.R.Ry. C. Srinivasa Rao, B.A., the Curator of the Gass Forest Museum, lectured on Botany and Science up to October; under the orders of Government he severed his connection with the teaching work of the college from November 1915. The lecturing in these two subjects had thereafter to be undertaken by the remaining members of the staff; an unsatisfactory arrangement which, it is hoped, will be remedied before long.

5. One post of Sub-Assistant Surgeon remained vacant throughout the year owing to military exigencies.

The other post was filled by—

M.R.Ry. T. S. Picbu Ayyar from 1st July to 15th September,
M.R.Ry. T. R. Srinivasa Ayyangar from 16th September to 2nd January, and
M.R.Ry. V. M. Ramunni Nayar from 9th January to the end of the year.

These officers lectured on first aid to the senior students.

6. Instruction in drill was given throughout the year by the two Havildars attached to the college.

Instruction in gymnastics could not be commenced during the year for lack of apparatus. Apparatus has since been set up and instruction started with the current session.

7. The Principal has no specific course of lectures and it is very undesirable that he should lecture regularly. He took special lectures on Botany for a short period when on tour and lectured to the senior students in working-plans during the ten days Mr. Bennett was in camp with the juniors in September, and again took all Mr. Bennett's lectures for a week in May. He also gave a few other special lectures.

In addition the Principal delivered a set of five lectures on Forestry in its connection with agriculture to the senior students of the Agricultural College.

(2) *Board of Visitors.*

8. Mr. F. L. C. Cowley-Brown on leaving the College staff became Conservator of Forests, Northern Circle, vice Mr. A. W. Lushington retired, and joined the Board of Visitors of the college. During the year Messrs. C. D. McCarthy and S. Cox proceeded on leave and Messrs. H. B. Bryant and H. A. Latham took their places on the Board.

The Board met on two occasions at Coimbatore on the 15th October 1915 and on the 28th June 1916.

(3) *Students.*

9. The year began with 66 students, 30 of the 1914-16 division beginning their second year and 36 of the 1915-17 division who entered the college on the 29th July 1915.

At the close of the year the numbers had been reduced to 29 and 31, respectively, or a total of 60. The reduction in the case of the seniors is due to the death of one student in March, and in the case of the juniors to four students being sent down in December as unfit for training and to one being dismissed in May for deliberate and gross disobedience.

Two more of the junior students were removed for unfitness for further training at the close of the year so that the 1915-17 division started their second year 29 strong.

CHAPTER II.—SCHOLASTIC RESULTS.

10. Twenty-nine students completed the two-years course in June 1916 and passed out of the college.

The following list shows for each man the certificate obtained, the order of merit and whether a British Government, Native State or private student:—

Name of student.	Name of circle or State to which attached.
Honours.	
1. C. M. Kunhiraman Nayar	Central Circle.
Higher Standard.	
2. T. E. Varada Achari	Northern Circle.
3. T. K. Parameswaram Pillai	Travancore State.
4. Kerala Varma Tambiran	Do.
5. D. Krishna Ayyangar	Do.
6. C. T. Thiruvengadam	Northern Circle.
7. M. N. Raman Pillai	Private.
8. P. A. Krishnaswami Mudaliyar	Southern Circle.
9. S. Srinivasa Rao	Western Circle.
10. K. Kunhiroyan	Do.
11. A. Swami Kutty	Do
12. S. V. Sigbatullohi	Southern Circle.
13. C. H. Ashe	Do.
14. G. Devanayagam Nayadu	Do.
15. Korah Fenn	Cochin State.
16. Syed Manavar	Southern Circle.
17. B. Sambamurthi	Private.
18. A. P. Srinivasa Ayyangar	Western Circle.
Lower Standard.	
19. W. Balakrishna Mudaliyar	Northern Circle.
20. K. Raghava Rao	Do.
21. Gulam Rassool	Mysore State.
22. K. Ramachendriah	Travancore State.
23. T. S. Narayanaswami Chetti	Private.
Failed.	
24. M. Krishna Ayyar	Central Circle.
25. P. Krishnan	Western "
26. K. G. Sundaraja Rao	Central "
27. T. R. Naganatha Ayyar	Private.
28. K. T. Venkatachar	Northern Circle.
29. K. G. Srinivasa Rao	Central "

11. A very considerable change was caused by the elimination of grace marks. In the past two years grace marks up to a maximum of 500 were awarded to each student and added to his total marks which assisted him in some cases to obtain the next higher standard. The average number of marks so allotted were 419 and 444 in the two previous years, respectively. During the year under review, under the orders of Government, the grace marks were reduced to a maximum of 250 and no longer count in any way towards the marks necessary for qualification for the several certificates.

This affected very materially the number of honours certificates. Actually only one student earned this certificate, whereas with the assistance of 250 grace marks two more students would have obtained honours.

12. For the first time there were failures to qualify for any certificate and no less than six students left the college without a certificate of any kind.

The allotment of grace marks would not have affected this result since all failed to obtain pass marks in two or more of the major subjects, whereas grace marks were only added to the aggregate marks and not to the marks for individual subjects.

The failures can be ascribed only to the low standard of intelligence and previous education of the students who failed and point to the necessity for increased severity in removing students unfit for training before the second year of their training.

13. It is noteworthy that the single honours certificate was gained by a British Government student and that again the Travancore State students as a whole did well.

14. The prizes were awarded as follows :—

(1) C. M. Kunhiraman Nayar ...	1. Best student in Senior class. 2. Do. in Forestry. 3. Do. in Survey. 4. For Honours. 5. Campbell Walker. 6. Lodge. 7. Indian Forester.
(2) T. E. Varadachari	1. Best student in Range Administration. 2. Do. in Engineering.
(3) K. Kunhiroyan	1. Brazier.
(4) S. Ramachendra Ayyar	1. Best student of Junior class.

15. All the twenty-nine students of the 1914—1916 division were examined in first aid by the District Medical and Sanitary Officer, Coimbatore, and his assistants. Twenty were successful in obtaining the certificate of the St. John's Ambulance Association.

The value of the instruction in first aid was practically demonstrated in several cases, notably when a player in a football match had the misfortune to dislocate his knee joint. One of the students very promptly and efficiently replaced the joint with a " click " which was much appreciated by the audience.

16. The 1914—1916 students were examined in drill by Mr. F. L. C. Cowley-Brown with satisfactory results. Emulating their immediate successors they learnt physical drill under the instruction of one of their members—K. Kunhiroyan, a former member of the late Moplah regiment of the Madras Army—and gave a demonstration before the Board of Visitors.

17. The final examinations in all the subjects were held by outside examiners and in the oral examinations one member of the Board of Visitors presided. The reports of the examiners are unanimous in regard to the generally low standard of intelligence and education of the students of the 1914—1916 division and the desirability of greater strictness in selection has been impressed on the Conservators.

Several valuable suggestions have been made by the examiners and these will be adopted as far as possible in future.

CHAPTER III.—ADMINISTRATION.

(a) *Board of Visitors.*

18. The Board of Visitors assembled twice during the year at Coimbatore : on the 15th October, taking the opportunity of the formal opening of the new college buildings by His Excellency the Governor, and on the 28th June after the final examinations had been held.

19. At the first meeting the following subjects were discussed :—

(i) *The Government memorandum passing orders on the draft calendar.*—The calendar was further revised and after final approval of Government was published in March 1916. It still lacks a good index and this will be provided in the 1916 edition.

(ii) *The estimate for laying out an athletic ground at the college.*—I am very sceptical as to the possibility of laying out a satisfactory ground without prohibitive expenditure. The whole matter is still pending with the Public Works Department and no active step towards an athletic ground had been taken by the end of the year.

(iii) *Allotment of studentships for the* 1916–18 *course.*—Final orders of Government have now been issued and the following students were admitted on 29th July 1916 :—

British Government	Northern Circle	6
	Central ,,	5
	Southern ,,	6
	Western ,,	6
Hyderabad State		2
Mysore State		1
Travancore State		2
Government of Ceylon		2
,, of Coorg		1
Private		3
	Total	34

(iv) *Provision of a swimming bath and a carriage shelter.*—The Board of Visitors considered that the former should be deferred and that the latter is necessary. Government, however, ordered that the carriage shelter could not be sanctioned under the present financial conditions.

(v) *The supply of a human skeleton at the Museum.*—This was approved, and one has been purchased and set up.

(vi) *The period of retention of Instructors' reports on students.*—It was decided that such reports need not be preserved and they are now destroyed as soon as they are no longer required.

(vii) *The preparation of Manuals of Sylviculture and Range Administration.*—These are now under preparation by Mr. R. D. Richmond, Deputy Conservator of Forests, and M.R.Ry. K. R. Venkatramana Ayyar, Extra Deputy Conservator of Forests, respectively.

(viii) *Advisability of refusing admission to the college to candidates who had not yet executed their bonds.*—It was decided that rule 17 of the College rules should be rigidly enforced. Happily there was no necessity to refuse admission to any student of the incoming year.

At the meeting in June, besides the results of the examinations and the allotment of medals, the following points were considered :—

(i) *The revised tour programme.*—The programme for 1915–16 which gave a continuous tour of six months with only one break at Christmas was admitted to be unsatisfactory and the Principal was directed to devise a fresh programme. The programme for 1916–17 submitted by the Principal was approved and it was recommended that it should not be departed from for a period of three years.

(ii) *Advance to students for the purchase of bicycles.*—This was not supported by the Board of Visitors ; but they consider that every student should provide himself with a bicycle before joining the college. The majority of the 1916–18 students came provided with bicycles and for the few remaining arrangements were made for them to obtain bicycles on easy terms.

(iii) *Grace marks.*—The Board did not approve of the proposal to allot grace marks for special attentiveness and activity.

(iv) *College blocks.*—Definite orders were given regarding the management of these blocks on points which were not clear hitherto and they will be taken over during the current year.

20. During the year the orders of Government were received on the proposals made at the Board of Visitors meeting of 28th June and 2nd July 1915. The principal points were as follows :—

(i) It was ordered that Mr. C. Srinivasa Rao should no longer remain on the lecturing staff.

(ii) The maintenance of the college estate and petty repairs to buildings was transferred to the Principal, subject to a maximum annual expenditure of Rs. 2,500.

(iii) The House Tutor is granted quarters rent free.

(b) Touring.

21. The following programme of touring was carried out during the year:—

Dates.	1914-16 Divison.	1915-17 Division.
15th to 25th September	....	At Bolampatti.
1st November to 27th November ..	Nilambur and Nedungayam	Nilambur and Nedungayam
28th November to Christmas holidays.	Mount Stuart.	and 2 days in Calicut.
4th January to 26th January ..	Walaiyar	Mount Stuart
27th January to 3rd March ..	Javadi Hills	Kalakad camp.
4th March to 26th March	Joint camp	At Bolampatti.
1st April to 1st May	Coonoor	Ootacamund.

The time taken to move from one camp to another has been included in the camp to which the move was made.

22. As far as possible works useful to the districts were carried out at each camp; but this motive was kept subordinate to the more important object in view, viz., that the work should be instructive to the students. The one exception was at Komuttiyeri, where, owing to a misunderstanding, marking in a sandal coupe was persisted in long after the instructional value of the work had ceased.

23. All work done is carefully recorded in the College journals and all observations made and points of interest or importance to the district are communicated to the District Forest Officer soon after leaving the district.

Thanks are due to the District Forest Officers of the districts visited and to their subordinates for their co-operation and assistance, especially to Messrs. Richmond (The Nilgiris), Barry (Tinnevelly) and K. R. Venkatramana Ayyar (South Vellore), who gave much personal assistance and whose arrangements were excellent.

(c) Health.

24. On the whole the season was unfavourable from the point of view of health, especially with regard to malaria. Practically every student was prostrated at one time or another by this disease. The touring season began badly with very heavy unseasonable rain in South Malabar and, probably, the foundation of future ill-health was laid here. At Mount Stuart, on the other hand, the dry season came early and the visit of the junior division at the close of the working season (in January) ran into the fever period.

25. One senior student, owing to inordinate exertion, unconnected with any College function, brought out malaria lurking in his system in a malignant form which caused his absence from the field and from lectures on frequent occasions during January, February and March. The frequent bouts of fever lowered his vitality so that when he contracted pneumonia, in the second half of March, his system was unable to make a stand and he succumbed very rapidly. On the 15th evening he was apparently well and participated in a game of football. He was prostrated with fever on the 17th and as he was not improving he was sent in to the Coimbatore hospital by cart (20 miles) on the 18th. Pneumonia, though not then suspected, was incipient. It developed very rapidly during the journey and was acute on his arrival at the Municipal hospital late at night. He died in the early hours of the 20th in spite of every care.

In addition to a few cases treated at the Municipal hospital, Coimbatore, or at one of the hospitals near the College camp when on tour, 996 cases were treated by the Sub-Assistant Surgeon attached to the College or by his assistant.

The cases are classified as follows :—

(1) Malarial fever 360
(2) Digestive system, i.e., diarrhœa, dysentry, gastritis, etc. 158
(3) Respiratory system, i.e., catarrh, laryngitis, etc. 115
(4) Wounds, contusions, sprains, etc. 105
(5) Miscellaneous, headaches, eye trouble, teeth, etc. 258

26. The present Sub-Assistant Surgeon Mr. V. M. Ramunni Nair has done his work well and zealously.

Until a second sub-assistant surgeon can be spared, some professional assistance is required in camp for one of the divisions and the services of a qualified compounder have been asked for recently. At present the sub-assistant surgeon accompanies that division which is camping where permanent medical assistance is most difficult to obtain and the dispensary lascar attends at the other camp.

(*d*) *Conduct.*

27. With one exception there were no serious cases of misconduct deserving more than trifling punishments in the shape of fine of a few grace marks.

The one case referred to was that of a junior student who left the college camp at Ootacamund for his home in Kumbakonam, not only without permission, but in direct disobedience of definite special orders. For three weeks nothing was heard of him. After consulting the members of the staff the Principal removed the defaulting student from the college.

28. *The staff* has worked hard and very efficiently, frequently under circumstances of considerable discomfort and stress.

29. *The clerical establishment* has worked hard and such defects as have obtruded themselves are due to inexperience, incapacity and want of method rather than to unwillingness or wantonness.

30. *The menial staff* is far from satisfactory and its members take every advantage of the lack of control during the absence of all authority when the staff is on tour.

The low pay coupled with the situation of the college, far removed from the "bazaar", gives no hope of any improvement in the future.

31. This holds good particularly with regard to the care and improvement of the grounds and the arboretum. During the absence of the staff on tour the gardeners grossly neglected the avenue and hedge plants and a large number of them died. Being low-paid posts no skilled gardeners can be employed and for want of immediate supervision every operation is done in a wrong and negligent manner. The pruning of avenue trees cannot be left to them and what has been done so far has been done in person by the Principal and his wife.

So long as this state of things continues the College estate must continue to present the appearance of a desolate waste, which is in no way toned down by the building rubbish left here and there by the Public Works Department.

32. A further difficulty is the want of water. The present well and engine can only just meet the requirements of the staff and students during the hot weather, so that the supply from this source for watering purposes has to be cut off just at the time when it is most urgently required.

Sanction for the erection of a wind-driven pump over the arboretum well has been granted and this disability will disappear when this pump is in working order.

Chapter IV.—The Gass Museum.

33. The transfer of the museum to the new site was not completed until the transfer of the college itself, though it had been begun in the previous year. A vast quantity of material had to be transported and re-arranged in the new building and this absorbed the energies of the Curator and Assistant Curator, Mr. Azizuddin, until well on in December. The Assistant Curator's post was then terminated and he reverted to his permanent post at the Agricultural college.

34. Mr. C. Srinivasa Rao, the Curator, arranged for the transport of the large mass of exhibits that were sent to Madras for the Industrial Exhibition held there in January and himself went to Madras to assist the Superintendent of the Forestry section in arranging them and subsequently in restoring them to the museum. Both at Coimbatore and Madras he worked very hard and efficiently.

35. He went on leave on 4th March 1916 and was posted from leave as ranger, fourth grade, to the North Coimbatore Forest division. It was not until the 8th May that a new Curator, Mr. G. Viswanathan, took charge of the museum and during the interval one of the clerks of the Principal's office acted as Curator.

36. With all these interruptions the normal business of the museum was more or less at a standstill and very little progress could be made with the revision of the catalogue, which has now become an urgent matter. The preparation has been pushed on latterly, however, and it is hoped to have it ready for the Press shortly.

37. The articles in the museum were considerably increased in number partly by exhibits sent by several District Forest Officers to the Madras Exhibition and transferred to the Gass Museum at its close and partly by direct contributions. One or two items were purchased. Until the new catalogue is completed it is not possible to give details of the addition.

38. Owing to the transfer to the new building the Museum was closed to the public from the beginning of the year until the 14th October. From that date up to 30th June 1916 the number of visitors (exclusive of visits by the staff or students) was 3,027.

CHAPTER V.—GENERAL.

39. The chief points in the history of the College during the past year were (1) the move to the new College buildings on the 16th September, (2) the formal opening of the buildings by His Excellency the Governor on the 14th October and (3) the prize distribution on the 29th June, when His Excellency Lord Pentland again honoured the College by distributing the medals and certificates.

His Excellency laid the foundation stone of the main buildings in April 1913 and it was fitting that the same hand should open the entrance gate when the construction was completed. Both events are commemorated by inscribed stones recessed in the walls on either side of the main entrance.

At the time of the formal opening of the buildings Lord Pentland was good enough to offer a shield for all round athletics and has kindly given a fine silver shield which His Excellency presented to the first holder—senior student C. H. Ashe—at the time of the prize distribution. The shield itself is tenable for the year only, but each winner will be presented by a miniature by the athletic club as a permanent momento of his success.

Athletics.

40. The interest in athletics was fully maintained during the year and the athletic club was ably managed by Mr. H. C. Bennett as Vice-President with the assistance of Mr. C. Srinivasa Rao in the first half and of Mr. R. B. Cornwell during the second half of the year as Secretary and of senior student Kunhiroyan as Assistant Secretary.

41. Hockey was played in the first half of the year and foot-ball on the second half year. Three members of the staff played regularly in the matches and practice games.

At hockey the success was not great, the record being four losses and a solitary win. At foot-ball the results of matches were more satisfactory, being five wins to one loss.

42. The annual sports were held on the 23rd October and the events were well contested. The cup presented by Mr. R. D. Richmond for the champion athlete was won by junior student C. S. Nanjappa.

43. Advantage was taken of the joint camp at Sadivayal in March to run off the Marathon race over the same ground as the previous year—an up and down-hill course of about 7 miles. All students fit and well competed. It was won easily in the good time of 57 minutes (½ a minute below the previous year's time) by junior student C. S. Nanjappa.

44. *Stock.*—The stock of all kinds was checked by the staff in July 1915 and no shortages were discovered.

45. The service registers have been posted up to date and the services verified up to the 1st July 1916.

MADRAS FOREST COLLEGE, COIMBATORE,
25*th August* 1916.

C. E. C. FISCHER,
Principal.

Madras Forest College, Coimbatore

SUMMARY of revenue and expenditure for the forest year 1915–16.

Head of service.	Amount. RS.	A.	P.
Revenue.			
I (*a*) ...	10	0	0
I (*d*) ...	25	0	0
V (*a*) ...	0	4	0
V (*b*) ...	1,669	10	11
Total ...	1,704	14	11
Expenditure A.—Conservancy and works.			
A (vi) (*c*) ...	4,821	4	6
A (vii) (*a*) ...	15	10	0
A (viii) (*e*) ...	628	10	4
A (viii) (*g*) ...	316	3	1
A (ix) (*b*) ...	2,732	10	11
Total ...	8,514	6	10
B.—Establishment and contingencies.			
B (i) (*b*) ...	50,069	9	5
B (i) (*c*) ...	26,563	7	0
B (i) (*d*) ...	2,579	3	9
B (i) (*d*) (*t*) ...	727	10	10
B (ii) (*b*) ...	5,535	11	4
B (ii) (*c*) ...	2,209	13	0
B (ii) (*d*) ...	534	10	6
B (iii) (*b*) (1) ...	325	0	8
B (iii) (*b*) (2) ...	7,833	10	6
Total ...	96,378	13	0
Grand total of A and B ...	1,04,893	3	10

ABSTRACT showing the stock of stores, tools, etc., for the year ending 30th June 1916.

District.	Description of stock.	On hand at commencement of the year (from 1st July 1915). Number.	On hand at commencement of the year (from 1st July 1915). Amount. RS. A. P.	On hand at the end of the year (up to 30th June 1916). Number.	On hand at the end of the year (up to 30th June 1916). Amount. RS. A. P.	Difference in value in favour of the year. RS. A. P.	Difference in value against the year. RS. A. P.
Madras Forest College, Coimbatore.	Surveying and other instruments.	1,151	6,944 13 9	1,162	7,813 13 11	869 0 2	..
	Tools	405	815 5 10	429	840 5 3	24 15 5	..
	Furniture *	460	2,850 13 5	1,661	27,955 1 9	25,104 4 4	..
	Tents	115	11,271 2 3	163	11,876 10 3	605 8 0	..
	Uniforms and accoutrements.	308	828 6 11	76	190 0 0	..	638 6 11
	Science apparatus and chemicals.	4,074	3,120 2 0	3,940	3,249 5 0	129 3 0	..
	Photographic instruments.	2	604 8 0	9	612 4 0	7 12 0	..
	Gymnasium apparatus.	..	..	9	478 0 0	478 0 0	..
	Miscellaneous ..	487	1,737 1 9	1,674	2,423 4 0	686 2 3	..
	Total ..	7,002	28,172 5 11	9,123	55,438 12 2	27,904 13 2	638 6 11

* Supplied by Public Works Department at new College building.

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APPENDICES.

APPENDIX A.—Comparative statement of number and origin of fires that occurred during 1915-16.

District.	A. Fires caused by accident or through carelessness in burning fire lines.		B. Fires entering the forests by crossing exterior fire lines.		C. Fires beginning inside the reserves or fire-traced areas. Owing to carelessness or accident. By workmen employed in the forests, by purchasers of forest produce and by hay cutters.		By villagers, travellers, etc., passing through the forests.		By railway engines.		By lightning or by fire balloons.		By intentional firing. In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.		Total.		Causes unknown.		Total of A, B and C and unknown causes.	
	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Northern Circle.																								
Ganjām	5	69	5	3,443	1	2	8	3,433	..	..	..	..	2	721	7	8,625	2	60	20	12,841	29	2,539	59	18,892
Vizagapatam ..	2	70	2	3	..	..	2	2	..	..	..	..	..	..	..	..	..	..	2	2	22	4,968	28	5,043
Gōdāvari, Upper.	..	..	24	106,660	..	..	1	..	..	..	..	..	1	15	1	..	..	..	3	15	18	27,493	45	134,168
Do. Lower.	..	..	6	104	2	58	25	6,102	..	..	..	..		..	1	8	..	..	28	6,168	20	1,404	54	7,676
Kistna	..	..	..	..	..	..	13	2,954	..	..	..	..	..	..	..	..	..	..	13	2,954	..	..	13	2,954
Kurnool, East ..	1	2,560	9	54,360	..	..	3	5,040	..	..	..	..	17	21,867	..	..	2	1,000	22	27,907	8	16,040	40	100,867
Do. South ..	2	10	17	60,183	3	946	3	2,650	9	5,819	..	..	4	905	..	..	6	12,308	25	22,628	23	17,621	67	100,442
Do. West ..	..	..	13	8,432	10	2,775	59	69,748	..	..	..	..	..	..	.	..	..	..	69	72,523	6	3,320	88	84,275
Total ..	10	2,709	76	233,185	16	3,781	114	89,929	9	5,819	..	..	24	23,508	9	8,633	10	13,368	182	145,038	126	73,385	394	454,317
Central Circle.																								
Bellary	18	25,213	..	..	..	..	37	4,868	..	..	1	32	..	..	..	..	..	..	38	4,900	164	76,867	220	(a) 106,980
Anantapur ..	6	2,640	20	4,914	2	22	13	1,047	1	600	2	3	..	..	..	..	17	1,915	35	3,587	81	50,485	142	61,626
Guntūr	..	..	..	..	..	..	20	3,030	..	..	..	..	..	..	..	..	..	..	20	3,030	..	..	20	(a) 3,030
Cuddapah, West..	3	470	5	780	4	267	6	714	..	..	..	..	63	19,117	.	..	9	16,806	82	36,904	..	..	90	(a) 38,154
Do. East..	8	52	53	41,422	..	..	10	3,362	2	151	..	..	166	125,040	1	9	9	3,066	188	131,628	5	745	254	(a) 173,847
Nellore	1	1	17	5,207	1	140	1	120	..	..	..	..	..	..	..	..	..	..	2	260	4	513	24	5,981
Chingleput ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	251	10	251
Chittoor	2	21	17	9,741	3	112	18	2,388	2	10	1	120	45	5,786	..	..	27	4,270	96	12,686	47	5,590	162	28,038
Total ..	38	28,397	112	62,064	10	541	105	15,529	5	761	4	155	274	149,943	1	9	62	26,057	461	192,995	311	134,451	922	417,907

(a) Includes area burnt in unprotected blocks in

		ACS.
Bellary	.. ..	76,867
Guntūr	.. ..	2,761
Cuddapah, West	.. .. ..	1,269
Cuddapah, East	.. .. ..	58,074
	Total ..	138,971

Appendix A.—Comparative statement of number and origin of fires that occurred during 1915–16—*cont.*

District.	A. Fires caused by accident or through carelessness in burning fire lines.		B. Fires entering the forests by crossing exterior fire lines.		C. Fires beginning inside the reserves or fire-traced areas. Owing to carelessness or accident. By workmen employed in the forests, by purchasers of forest produce and by hay cutters.		By villagers, travellers, etc., passing through the forests.		By railway engines.		By lightning or by fire balloons.		By intentional firing. In order to obtain new grass.		In order to turn out game or to reduce cover.		Maliciously fired.		Total.		Causes unknown.		Total of A, B and C and causes unknown.	
	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Southern Circle.																								
North Vellore ..	..	..	3	1,932	..	..	5	831	2	3	..	..	4	845	..	..	8	543	19	2,222	65	9,318	87	13,472
South do. ..	..	..	..	..	3	132	9	214	..	..	..	..	46	11,906	14	4,581	2	410	74	17,243	92	19,827	166	37,069
South Arcot ..	..	..	1	5	..	..	2	16	..	..	..	..	..	..	..	..	..	..	2	16	2	100	5	122
North Salem ..	2	21	6	942	2	65	29	2,008	..	..	..	..	6	39	2	3,080	1	30	40	5,222	84	12,598	132	18,783
South do. ..	1	13	2	16	..	..	3	150	..	..	.	..	36	13,810	..	..	4	294	43	14,254	62	2,745	108	17,028
Trichinopoly ..	..	..	4	81	..	..	4	61	..	..	..	..	..	..	..	..	5	203	9	264	3	162	16	506
Madura	..	..	42	4,021	..	..	7	387	..	..	..	..	12	3,022	3	550	13	2,753	35	6,712	64	12,576	141	23,309
Tinnevelly ..	..	..	7	191	1	..	3	606	..	..	11	1,133	3	280	12	4,579	..	..	30	6,598	5	220	42	7,010
Total ..	3	34	65	7,188	6	197	62	4,273	2	3	11	1,133	107	29,902	31	12,790	33	4,233	252	52,531	377	57,546	697	117,299
Western Circle.																								
Mangalore, North.	2	2	8	229	..	..	20	887	..	..	..	..	3	31	5	58	..	..	28	976	3	87	41	1,294
Do. South.	3	15	15	339	..	..	29	637	..	..	..	..	12	360	..	..	8	256	49	1,253	14	295	81	1,902
Malabar, North ..	1	10	2	101	..	..	1	15	..	..	1	25	..	..	..	..	1	5	3	45	8	4,254	14	4,410
Do. South. *	2	15	3	248	2	175	..	..	..	..	..	..	1	1,500	..	..	..	..	3	1,675	..	..	8	1,938
The Nilgiris * ..	2	944	3	880	..	..	10	500	..	..	..	..	1	12	5	8,288	1	150	17	8,950	15	8,284	37	19,058
Kollegal ..	1	25	4	8,640	1	2	10	17,461	..	..	..	..	4	2,595	1	360	2	2,040	18	22,458	4	7,180	27	38,303
Coimbatore, North.	4	3,243	1	2,169	..	..	9	11,915	..	..	..	..	..	..	..	..	1	192	10	12,107	208	245,251	223	262,770
Do. Central.	7	662	6	749	..	..	2	172	3	80	..	..	9	999	1	86	16	4,877	31	6,214	46	2,940	90	10,565
Do. South.	3	1,501	2	372	14	972	13	395	..	..	..	..	..	..	..	..	1	50	28	1,417	9	286	42	3,576
Total ..	25	6,417	44	13,727	17	1,149	94	31,982	3	80	1	25	30	5,497	12	8,792	30	7,570	187	55,095	307	268,577	563	343,816
Grand total ..	76	37,557	297	316,164	49	5,668	375	141,713	19	6,663	16	1,313	435	208,850	53	30,224	135	51,228	1,082	445,659	1,121	533,959	2 576	13,33,339
Grand total for 1914–15.	88	20,161	174	164,934	37	8,520	201	25,558	12	427	3	646	274	77,779	37	14,692	110	49,446	674	177,068	457	92,110	1,396	454,273

* Includes the number of fires in the areas not under special protection.

APPENDIX B.—Comparative statement of impounded cattle for 1915–16.

District.	Number of cattle impounded.		Average for three years ending 1915–16.
	1914–15.	1915–16.	
Northern Circle.			
Ganjām	1,160	1,035	1,016
Vizagapatam	1,057	2,152	1,468
Gōdāvari, Upper	293	610	430
Do. Lower	1,167	1,185	1,050
Kistna	3,452	4,355	3,512
Kurnool, East	8,962	7,284	8,728
Do. South	5,332	3,275	3,885
Do. West	11,600	9,865	12,167
Total	33,023	29,761	32,256
Central Circle.			
Bellary	13,770	12,424	13,330
Anantapur	10,376	13,789	11,341
Guntūr	28,178	29,450	25,721
Cuddapah West	8,800	9,969	10,214
Do East	5,569	6,214	5,805
Nellore	15,178	9,769	14,224
Chingleput	8,322	6,033	6,350
Chittoor	8,983	7,165	8,557
Total	99,176	94,813	95,542
Southern Circle.			
North Vellore	7,989	8,149	7,823
South do.	7,884	5,049	5,848
South Arcot	25,164	9,224	16,911
North Salem	4,418	3,771	4,354
South do.	6,708	4,553	5,036
Trichinopoly	5,047	2,594	5,433
Madura	7,318	5,035	6,062
Tinnevelly	2,328	2,900	2,964
Total	66,856	41,275	54,431
Western Circle.			
Mangalore, North	290	332	766 (North and South together)
Do. South	457	609	
Malabar, North	82	15	42
Do. South	83	140	101
The Nilgiris	959	1,034	790
Kollegal	3,031	2,187	2,869
Coimbatore, North	2,437	3,923	2,807
Do. Central	1,411	766	1,055
Do. South	588	1,048	1,012
Total	9,338	10,054	9,442
Grand total	208,393	175,903	191,671

Annual Form No. 65.

Forest Department, Madras Presidency.

Area of reserved forests and reserved lands during 1915–16.

District.	Area of reserved forests.						Area of reserved lands.						Total area of reserved forests and reserved lands in square miles.
	Area on 1st July 1915.		Added during the year.	Excluded during the year.	Area on 30th June 1916.		Area on 1st July 1915.		Added during the year.	Excluded during the year.	Area on 30th June 1916.		
	Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Northern Circle.													
Ganjām	364,132	569	..	6,667	357,465	559	44,480	(a) 69	8	3,080	41,408	65	624
Vizagapatam	199,013	311	385	27	199,371	312	1,712	3	..	385	1,327	(b) 2	314
Gōdāvari, Upper	273,751	428	1,113	..	274,864	429	226,489	354	..	1,112	225,377	352	781
Do. Lower	258,276	404	..	..	258,276	404	47,955	75	..	..	47,955	75	479
Kistna	173,383	271	..	1,951	171,432	268	..	..	..	..	..	..	268
Kurnool, East	640,302	1,000	..	..	640,302	1,000	..	..	..	..	..	..	1,000
Do. South	490,465	766	..	26	490,439	766	..	..	..	..	..	..	766
Do. West	555,071	867	..	..	555,071	867	..	..	..	..	..	..	867
Total ..	2,954,393	4,616	1,498	8,671	2,947,220	4,605	320,636	501	8	4,577	316,067	494	5,099
Central Circle.													
Bellary	396,444	619	..	..	396,444	619	40,000	63	..	..	40,000	63	682
Anantapur	475,321	743	9,061	3,722	480,660	751	6,578	10	91	6,218	451	1	752
Guntūr	521,247	814	..	5	521,242	814	..	..	..	..	..	..	814
Cuddapah, West	(c) 470,077	734	1,180	6,861	464,396	726	..	..	1,963	16	1,947	3	729
Do. East	693,471	1,084	..	..	693,471	1,084	158	..	19	..	177	..	1,084
Nellore	466,396	729	5,423	9,661	462,158	722	..	..	815	..	815	1	723
Chingleput	133,454	209	..	372	133,082	208	9	..	..	9	..	..	208
Chittoor	536,470	838	..	4,597	531,873	831	42	..	..	..	42	..	831
Total ..	3,692,880	5,770	15,664	25,218	3,683,326	5,755	6,787	73	(d) 2,888	(e) 6,243	43,432	68	5,823

(a) Last year's figure rectified.

(b) Includes 2·05 sq. miles of Karakavalasa leased forests and East and West blocks.

(c) The difference between the closing balance of last year and the opening balance of this year in column 2 is due to non-inclusion of 3·78 acres of Diguvakalvatala enclosure to Kondasunkesula reserve in Cuddapah district

(d) Of the total area of 2,888 acres added, 19 acres relate to correct area at settlement and the rest notified under section 4.

(e) 6,243 acres excluded represent 4,983 acres transferred to reserved forests, 9 acres due to cancellation of notification and the balance of 1,251 acres is due to wrong inclusion originally in Yerrakonda extension II, Anantapur district.

Area of reserved forests and reserved lands during 1915–16—*cont.*

District.	Area of reserved forests.						Area of reserved lands.						Total area of reserved forests and reserved lands in square miles.
	Area on 1st July 1915.		Added during the year.	Excluded during the year.	Area on 30th June 1916.		Area on 1st July 1915.		Added during the year.	Excluded during the year.	Area on 30th June 1916.		
	Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Southern Circle.													
North Vellore	314,129 (*a*) – 676 (*b*) – 8,634	491 – 1 – 14	..	23	304,796	476	72	..	1,165	..	1,237	2	478
South do.	455,593 (*a*) – 262 (*b*) +8,634	712 – 1 + 14	4	..	463,969	725	27	..	..	4	23	..	725
South Arcot *cum* Tanjore ..	214,824 (*c*)+11,823	336 + 18	..	977	225,670	353	..	..	..	..	..	..	353
North Salem	507,374	792	..	32	507,342	792	29,290	46	430	(*d*) 4,878	24,842	39	831
South do.	371,681 (*e*) – 13	581	..	..	371,668	581	11,620 (*e*) + 13	18	..	..	11,633	18	599
Trichinopoly	227,098 (*c*)—11,823 (*f*) – 1,708	355 – 18 – 3	(*i*) 1,344	(*h*) 3,359	211,552	331	5,769	9	..	(*i*) 1,525 (*h*) 621	3,623	6	337
Madura	420,835 (*f*) + 1,708	657 + 3	10	203	422,350	660	10	..	2	10	2	..	660
Tinnevelly	274,298	429	27	..	274,325	429	74	..	137	(*g*) 72	139	..	429
Total ..	2,785,832 – 951	4,353 – 2	1,385	4,594	2,781,672	4,347	(*o*) 46,862 + 13	73	1,734	7,110	41,499	65	4,412
Western Circle.													
Mangalore, North	* 231,955	362	92	..	232,047	362	92	.	..	§ 92	..	..	362
Do. South	* 278,792	436	8	..	278,800	436	8	..	..	§ 8	..	..	436
Malabar, North	168,098 † – 22	263	..	..	168,076	263	† 22	..	..	..	22	..	263
Do. South	91,525	143	..	..	91,525	143	12,805	20	(*k*) 5	..	12,810	20	163
The Nilgiris	303,919	475	5	..	303,924	475	49,832 ‡ 2,918	78 5	1,433 ..	§ 5 (*m*) 48	51,212 2,918	80 5	560
Kollegal	467,212	730	227	..	467,439	730	443	1	10	§ 227	226	..	730
Coimbatore, North	589,978	922	..	(*j*) 3,806	586,172	916	229	..	430	..	659	1	917
Do. Central ..	225,963	353	6,367	..	232,330	363	6,450	10	(*l*) 768	§ 6,367 (*n*) 209	642	1	364
Do. South	290,652	454	88	..	290,740	454	142	..	..	§ 88	54	..	454
Total ..	2,648,072	4,138	6,787	3,806	2,651,053	4,142	72,941	114	2,646	7,044	68,543	107	4,249
Grand total ..	12,080,226	18,875	25,334	42,289	12,063,271	18,849	487,239	761	7,276	24,974	469,541	734	19,583

(*a*) Reduction made on account of correct computation of areas of certain reserves.
(*b*) Transfer from North to South Vellore.
(*c*) Transfer from Trichinopoly to South Arcot.
(*d*) Area excluded at the time of settlement in Hulaidurgam reserve.
(*e*) Reserved land erroneously included under reserve in previous years.
(*f*) Transfer from Trichinopoly to Madura.
(*g*) Difference is due to actual area found at the time of settlement.
(*h*) Areas transferred to Public Works Department.
(*i*) Difference excluded at the time of settlement.

* The excess of one acre is due to rounding off fractions in the distribution of areas to the two divisions.
† Reserved lands wrongly included in the last year's return.
‡ Toda patta lands. § Transferred to reserved forests. (*j*) Disafforested. (*k*) Rectification due to adoption of survey of India figures.
(*l*) Recomputation of areas. (*m*) Excluded from reservation (*n*) Excluded at settlement. (*o*) Corrected in the Board's office.

ANNUAL

Forest Department,

STATEMENT showing the progress made in, and the

Name of forest district.	Area already settled at commencement of year.	Areas finally settled during the year.					
		Number and date of Government Order according final sanction to the settlement.	Name of forest settled.	Area in square miles.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.
					In forest accounts.	In other accounts.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Northern							
	SQ. MLS.			SQ. MLS.	RS.		
Ganjām ..	(a) 559	....	....	..	..	..	..
Vizagapatam.	311	G.O. No. 2004, Revenue, dated 3rd September 1915.	Busilikota and Rayipalem enclosures in Sanivaram reserve.	0·60	..	..	..
Gōdāvari, Upper.	428	G.O. No. 2377, Revenue, dated 27th October 1915.	Pedakonda extension I ..	1·23	..	..	..
			Enakuru extension II ..	(c) 0·51	..	..	..
Gōdāvari, Lower.	404	....	....	..	..	..	..
Kistna ..	(d) 268	....	....	..	..	..	..
Kurnool, East.	1,000	....	....	..	..	..	..
Kurnool, South.	766	....	....	..	..	..	..
Kurnool, West.	867	....	....	..	..	..	..
Total ..	4,603			2·34	..	..	..
Central							
Bellary ..	619	....	....	..	..	..	..
Anantapur..	743	G.O. No. 1345, Revenue, dated 8th June 1915.	Yerrakonda extension No. II.	7·76 *	..	..	..
		....	....	..	..	..	..
		....	....	..	..	..	..
Guntūr ..	814	....	....	..	..	..	..
Cuddapah, West.	734	G.O. No. 2838, Revenue, dated 18th December 1915.	Faridpenta enclosure to Palakondas.	0·024	152	..	..
Cuddapah, East.	1,084	....	....	..	..	..	..
	..	....	....	..	..	..	..
Nellore ..	729	....	....	..	..	..	..

(a) An area of 10 square miles was disafforested during the year.
(c) Correct figure now reported.
(d) Difference due to disafforestation and rectification of boundary.
* This is the correct extent as notified under section 16.

FORM No. 66.

Madras Presidency.

expenditure incurred on, Forest Settlements during 1915–16.

Areas undergoing settlement.						
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.		Estimate of areas in which settlement operations have not yet commenced.
Name of tract. (9)	Area in square miles. (10)	Name of tract. (11)	Area in square miles. (12)	In forest accounts. (13)	In other accounts. (14)	(15)
Circle.						
	SQ. MLS.		SQ. MLS.	RS.		SQ. MLS.
Chokkapad	(*b*)64·69	Kriamba enclosure	0·13	..	..	..
....	..	....	..	..	..	..
Nugur	246·61	....	..	..	..	Cherla block area 56·16.
Pedamidisileru	96·48	....	..	..	..	..
Busipakala	1·88	....	..	..	..	..
Kansulur reserve, Vandalurgondi extension I.	0·82	....	..	..	..	..
Tulluvada extension V ..	0·50	....	..	..	..	..
Valsugri reserve, Korrajulagudem extension I.	1·93	....	..	..	..	..
Gummadakonda extension III to Rekapalli hill reserve.	2·40	....	..	..	..	..
Dhanukonda extension IV to Rekapalli hill reserve.	1 53	....	..	..	..	..
Coringa extension	75	....	..	..	..	..
....	..	....	..	..	..	..
....	..	....	..	..	..	..
....	..	....	..	..	..	..
....	..	....	..	..	..	..
	491·84		0·13	..	..	56·16
Circle.						
....	..	....	..	..	..	..
Bhadrapur extension	0·56	....	..	462	..	..
Addition to Amagondapalayam.	0·02	....	..	..	..	..
Addition to Peddoddi reserve.	0·09	Addition to Dadilkota reserve.	0·06	..	..	..
....	..	....	..	..	..	..
Pentahs in Palakondas.. ..	0·28	Putlampatti shrotriyam forest.	2·76	..	..	..
Thummalabylu	0·116	....	..	..	..	..
Palakondas	0·13	....	..	..	..	..
....	..	Addition to Gudlur South R.F.	0 04	..	..	..

(*b*) Difference between this and last year's figure is due to recomputation of area.

Statement showing the progress made in, and the expenditure

Name of forest district. (1)	Area already settled at commencement of year. (2)	Areas finally settled during the year. Number and date of Government Order according final sanction to the settlement. (3)	Name of forest settled. (4)	Area in square miles. (5)	Expenditure incurred during the year on areas finally settled. In forest accounts. (6)	Expenditure incurred during the year on areas finally settled. In other accounts. (7)	Entire cost per square mile of areas finally settled during the year. (8)
							Central
	SQ. MLS.			SQ. MLS.	RS.		
	..	....	....	..	..	..	..
	..	....	....	..	..	..	..
	..	....	....	..	..	..	..
Chingleput.	209 *	....	....	..	..	..	..
Chittoor ..	838	....	....	..	..	..	..
	..	....	....	..	..	..	..
Total ..	5,770			7·784	152	..	..
							Southern
Vellore, North.	491 (a) — 1 (b) —14	....	....	..	..	..	..
Vellore, South.	712 (a)— 1 (b)+ 14	G.O. No. 419, Rev., dated 23rd February 1916.	Addition to Andiappanur reserved forest.	·0062	147	..	..
Arcot, South.	336 (c)+ 18 (d)— 1	....	....	..	..	..	..
Salem, North.	792	....	....	..	..	..	..
Salem, South.	581	....	....	..	..	..	..
Trichinopoly	355 (c) — 18 (f)— 3 (g) — 5	G.O. No. 1285, Rev., dated 31st May 1915.	V. Kanapadi extension block.	0·8607	..	..	..
	..	G.O. No. 2055, Rev., dated 9th September 1916.	Palamalai extension block ..	1·24	..	..	..
Madura ..	657 (f)+ 3	G.O. No. 1764, Rev., dated 29th July 1915.	Addition to Southern slopes ..	0·0062	..	..	..
		G.O. No. 132, Rev., dated 21st January 1916.	Addition to Pambar reserve ..	0·0014	..	..	..
		G.O. No. 251, Rev., dated 5th February 1916.	Addition to Adukkam reserve.	0·0082	85	..	..
Tinnevelly.	429	G.O. No. 2246, Rev., dated 6th October 1915.	Tirukkuttachala parvatam estate.	0·057	..	..	..
Ramnad division.		....	Mailodai estate part	0·057	..	..	..
Total ..	4,345			2·2367	232	..	..

* The reservation of Nandambakkam extension II in Chingleput district was cancelled.
(a) Deduction on account of correct computation of area.
(b) Deduction on account of transfer of reserves from North to South Vellore.
(c) Area transferred from Trichinopoly to South Arcot.

ncurred on, Forest Settlements during 1915–16—*cont.*

Areas undergoing settlement						
At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.		Estimate of areas in which settlement operations have not yet commenced.
Name of tract. (9)	Area in square miles. (10)	Name of tract (11)	Area in square miles. (12)	In forest accounts. (13)	In other accounts. (14)	(15)
Circle—cont.						
	SQ. MLS.		SQ. MLS.	RS.		SQ. MLS.
....	..	Kavali extension No. II ..	0·08	..	..	..
....	..	Cherlopalli addition ..	0·02	..	..	..
....	..	Sriharikota enclosure ..	1·14	..	..	..
....	..	....	..	..	..	..
Addition to Gundlur reserve ..	·015	....		..	..	..
Addition to Ankalammakonda.	·05	....	..	..	..	..
	1·261	..	4·10	462	..	..
Circle.						
Korapet extension	0·0844	Sanankuppam	·0042	1,153	..	..
Sholavaram	0·0281	Addition to Banavaram reserve.	·0703	..	..	..
		Tiruvallam plantation	·6834	..	..	..
		Virinjipuram	·4941	..	..	..
		Ammundi	·2500	..	..	..
		Vannivedu	·0898	..	..	..
		Kilminnal	·2281	..	..	..
Singarapet extension, Survey Nos. 129 and 130 of Sembarai village.	0·0348	....	..	1,756	..	
...	..	....	..	..	..	..
Hudaidurgam 4 blocks ..	(e) 38	Bevanurmalai 2nd extension.	·0078	..	..	..
		Bathanavadi extension ..	·6640	..	..	..
Arana	3	....	..	..	..	..
Tirtagiri	3	....	..	..	..	..
Jarugamalai	12	....	..	..	..	..
Tirumanur extension	·0200	....	..	..	..	..
Gundur	3·85	....	..	..	..	0·83
Ariyur shola block	1·81	....	..	..	..	
Vengur padugais	(g) ..	....	..	..	..	..
...	..	Addition to Shengalvarayar reserve.	(a) 0 0039	..	..	..
...	..	....	..	..	..	..
...	..	....	..	..	..	..
...	..	Kuliratti enclosure	0·214 7	..	..	..
Srivilliputtūr ghat forests ..	·0027	....	..	..	..	..
	61·83		2·7103	2,909	..	0·83

(*d*) Area disafforested.
(*e*) The difference is due to area thrown out at Forest settlement.
(*f*) Area transferred to Madura.
(*g*) Area transferred to Public Works Department.

Statement showing the progress made in, and the expenditure

Name of forest district.	Area already settled at commencement of year.	Areas finally settled during the year.					
		Number and date of Government Order according final sanction to the settlement.	Name of forest settled.	Area in square miles.	Expenditure incurred during the year on areas finally settled. In forest accounts.	Expenditure incurred during the year on areas finally settled. In other accounts.	Entire cost per square mile of areas finally settled during the year.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
							Western
	SQ. MLS.			SQ. MLS.	RS.		
Mangalore, North.	362	G.O. No. 1889, dated 16th Aug. 1915.	Madibare extension No. I .. Do. extension No. II ..	} ·14	..	..	..
Total ..	362			·14	..	..	..
Mangalore, South.	436	G.O. No. 1676, dated 17th July 1915.	Subrahmanya extension No. I.	·007	..	..	..
		G.O. No. 1677, dated 17th July 1915.	Aletti addition No. I ..	·006	..	..	..
Total ..	436			·013	..	..	..
Malabar, North.	263	....	....	..	..	..	..
Malabar, South.	143	....	....	..	..	..	..
The Nilgiris.	475	G.O. No. 2116, dated 17th Sep. 1915.	Snowdon addition No. II ..	·008	..	..	..
Total ..	475			·008	..	..	
Kollegal ..	730	G.O. No. 2644, dated 29th Nov. 1915.	Yedarhalli addition No. IV ..	·003	..	..	..
		G.O. No. 2918, dated 29th Dec. 1915.	Chikkailuru extension No. II.	·006	..	..	..
		G.O. No. 114, dated 19th Jan. 1916.	Hanur addition A	·023	..	..	..
			Do. do. B	·001	..	..	..
			Do. do. C	·006	..	..	..
		G.O. No. 516, dated 7th March 1916.	Yedarhalli addition No. II ..	·253	..	..	..
Total ..	730			·292	..	..	..
Coimbatore, North.	922 (a) — 6	....	....	..	..	..	..
		....	....	..	..	..	..
Total.	916			..	..	..	..
Coimbatore, Central.	353	G.O. No. 2479, dated 8th Nov. 1915.	Survey Nos. 93-A and 93-B of Kummarampalayam (enclosures in Gopinari reserve).	·006	..	..	..
		G.O. No. 2890, dated 24th Dec. 1915.	Anaikatti block, North ..	1·76 (b)+1·14	.. ..	.. ..	.. ..
			Do. do. South ..	7·36 (c) — ·32	.. ..	.. ..	.. ..
Total ..	353			9·946	..	..	..
Coimbatore, South.	454	G.O. No. 527, dated 8th March 1916.	Additions to Punachi reserve No. II.	·14	1,576·	..	..
Total ..	454			·14	1,576	..	..
Grand total.	4,132			10·53 or 10	1,576	..	..

(a) Disafforested.
(b) Recomputation of areas.

incurred on, Forest Settlements during 1915-16—*cont.*

Circle.

Areas undergoing settlement. At commencement of the year. Name of tract. (9)	Area in square miles. (10)	Taken in hand during the year. Name of tract. (11)	Area in square miles. (12)	Expenditure incurred during the year on areas undergoing settlement. In forest accounts. (13)	In other accounts. (14)	Estimate of areas in which settlement operations have not yet commenced. (15)
	SQ. MLS.		SQ. MLS.	RS.		SQ. MLS.
....	..	....	..	..	..	..
....	..	....	..	..	..	..
	..		..	..	..	
....	..	....	..	..	..	..
....	..	....	..	..	..	..
	..		..	..	..	..
....	..	....	..	..	..	..
....	..	....	..	..	..	
Benne addition No. III ..	·135	Naduhatti addition No. I ..	·003	..	..	
Do. do. No. IV ..	·098	Rangaswami Peak	2·23	..	..	1·84
Kalmalai addition	·064	....	..	..	..	
Ammankaval addition No. IV.	(d) ..	....	..	..	..	
Cherambadi addition No. V.	(d) ..	....	..	..	..	
	·297		2·233	..	..	1·84
Yedarhalli addition No. I ..	·036	Yedarhalli addition No. VII.	·01	3,565	..	
Do. No. III ..	·016	....	..	..	..	
Do. No. V ..	·030	....	..	..	..	
Do. No. VI ..	·160	....	..	..	..	1·39
Chikkailuru addition No. I ..	·103	....	..	..	..	
Chikkailuru extension Nos. III and IV.	·051	....	..	..	..	
....	..	....	..	..	..	
....	..	....	..	..	..	
	·396		·01	3,565	..	1·39
Enclosures in South Bargur reserve and its additions.	·160	Enclosures in the Gutialattur reserve.	·672	..	..	..
Enclosures in North Bargur reserve and its additions.	·198	....	..	..	..	..
	·358		·672	..	..	..
Sundapatti additions Nos. 2 to 20.	·80 (b)+·05	....	..	45	..	..
Addition to Thadagam block No. IV.	·06	....	..	..	..	..
Thadagam additions Nos. 2 to 21.	·087	....	..	..	..	..
....	..	....	..	..	..	..
....	..	....	..	..	..	..
	·997		..	45	..	..
Additions to Anamalai reserve.	·08	....	..	..	..	..
	·08		..	..	..	..
	2·12	....	2·91	3,610	..	3·23

(c) Excluded at settlement.
(d) Excluded from reservation.

ANNUAL FORM No. 67.

Forest Department, Madras Presidency.

RECORD of demarcation and maintenance of boundaries during 1915–16.

District.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries still to be demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year. On new work.	Expenditure on demarcation during the year. On repairs.
Northern Circle.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	RS.	RS.
Ganjam	(h) 4	(a) & (i)1,247 ..	117	(j) 1,368	..	(k) 80	(l) 1,448	(b)551 (m)	(n) 19
Vizagapatam.. ..	..	(a) 533 7	..	540	24	19	583	..	325
Gōdāvari, Upper ..	..	.. 425	..	425	..	143	568	..	962
Do. Lower ..	..	(a) 727 33	25	785	..	51	836	..	1,120
Kistna	..	(a) 354 11	204	569	..	41	610	..	199
Kurnool, East ..	..	(a) 688 ..	15	703	..	48	751	..	298
Do. South ..	..	(a) 601 ..	28	629	..	5	634	..	324
Do. West ..	..	(a) 118 203	609	930	..	100	1,030	..	604
Total ..	4	679 (a) 4,268	998	5,949	24	487	6,460	551	3,851
Central Circle.									
Bellary	15	..	1,731	1,746	6	..	1,752	255	15
Anantapur	7	38	1,787	1,832	15	..	(c) 1,847	163	1,020
Guntūr	..	17	1,375	1,392	..		1,392	..	481
Cuddapah, West ..	..	8 (a) 445	917	1,370	..	29	(c) 1,399	..	294
Do. East ..	..	59 (a) 184	672	915	..	46	961	..	1,483
Nellore	..	1,720	275	1,995	..	84	(c) 2,079	..	967
Chingleput	..	868	..	868	..	..	(c) 868	..	499
Chittoor	..	1,447	..	1,447	..	60	(c) 1,507	..	1,628
Total ..	22	4,157 (a) 629	6,757	11,565	21	219	11,805	418	6,387
Southern Circle.									
North Vellore ..	..	1,130	..	1,130	..	1	(d) 1,131	..	39
South do. ..	..	1,047	108	1,155	..	28	(d) 1,183	..	175
South Arcot	..	1,201	..	1,201	..	..	(e) 1,201	..	45
North Salem	..	900	429	1,329	..	40	1,369	..	500
South do. ..	..	903	240	1,143	..	5	1,148	..	354
Trichinopoly	13	897	68	978	3	24	(f) 1,005	154	39
Madura	57	975	406	1,438	121	178	(g) 1,737	2,226	23
Tinnevelly	..	10	494	504	..	14	518	..	514
Total ..	70	992 (a) 6,071	1,745	8,878	124	290	9,292	2,380	1,689

(a) Cleared by Forest subordinates free of cost.

(b) Rupees 88 for outer boundary and Rs. 50 for enclosures. Rupees 413 were spent on construction of 1,890 cairns on the lines in Chokkapad cut during the previous year.

(c) Due to addition or disafforestation of reserves.

(d) The difference of 15 miles between the figures of the previous year and the year under reference was due to portions of Thellai, Malayalam and Arasampattu reserves having been transferred from North to South Vellore.

(e) There was an increase of 79 miles due to the transfer of Tanjore reserves from Trichinopoly and a decrease of 30 miles due to the disafforestation of certain reserves and casuarina plantations and to the handing over a reserve to Public Works Department.

(f) The difference between the figures of the previous year and the year under reference was due to transfer of 79 miles of reserves to South Arcot, 5 miles to Madura and 51 miles to Public Works Department.

(g) The increase of 5 miles was due to the transfer of a reserve from Trichinopoly.

(h) Excludes 47 miles belonging to Parlakimedi Maliahs.

(i) Do. 458 do. do.

(j) Do. 505 do. do.

(k) Do. 14 do. do.

(l) Do. 519 do. do.

(m) Excludes Rs. 497 spent on new works in Parlakimedi Maliahs.

(n) Excludes Re. 1 spent on repairs in Parlakimedi Maliahs.

Record of demarcation and maintenance of boundaries during 1915-16—*cont.*

District.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries still to be demarcated at the close of year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year. On new work.	Expenditure on demarcation during the year. On repairs.
Western Circle.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	RS.	RS.
Mangalore, North * ..	..	4	1,232	1,236	..	103	1,339	..	64
Do. South * ..	..	..	1,130	1,130	46	101	1,277	..	(g) 29 (h) — 9
Malabar, North ..	12	(b) 162	1,000	1,174	20	36	1,230	935	..
Do. South ..	..	47 (b) 15 (c) 9	60	131	20	55	206	..	445 (i) 118
The Nilgiris	2	54	1,559	1,615	..	299	1,914	100	2,581 (j) 148
Kollegal	6	9 (b) 45	110	170	232 (e) −6	87	483	271	285
Coimbatore, North ..	(a) 2	32 (c) 360	151 (d) — 5	540	28 (a) 2	110 (d) — 7	673	45	1,202
Do. Central.	..	..	583	583	13 (f) 14	44 (f) 6	660	..	(i) 44 (g) 64
Do. South ..	..	(b) 10 (c) 101	103	214	..	52	266	..	(i) 4
Total ..	22	146 (b) 232 (c) 470	5,923	6,793	369	886	8,048	1,351	4,975
Grand total ..	118	6,206 (c) 11,438	15,423	33,185	538	1,882	35,605	4,700	16,902

* Revised figures furnished by the District Forest Officers with reference to the length given in the Survey of India maps.

(a) Length of revised boundaries caused by disafforestation.
(b) Cleared for fire-protection, the cost being debited to A-viii (f).
(c) Cleared by forest subordinates free of cost.
(d) Length of boundaries of a portion of Velamundi reserved forest disafforested.
(e) Do. of enclosures transferred to reserved forests.
(f) Do. of reserved lands do.
(g) Cost of demarcating coupes and repairs to coupe stones, etc., wrongly debited to A-viii (a).
(h) Cash recovery of service payments.
(i) Cost of construction of cairns, pillars, etc.
(j) Cost of clearing block and compartment lines.

Annual Form No. 69.

Forest Department, Madras Presidency.

Progress made in working-plans during 1915–16.

District.	Areas for which working-plans have been completed and approved by the Board. — At commencement of the year.	Areas for which working-plans have been completed and approved by the Board. — During the year.	Areas for which working-plans are being compiled or have been compiled but not sanctioned. — At commencement of the year.	Areas for which working-plans are being compiled or have been compiled but not sanctioned. — Taken in hand during the year.	Areas for which working-plans have still to be taken in hand.	Area for which working-plans are not at present required.	Total forest area as in form No. 65.
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Northern Circle.							
Ganjām	442	182	..	..	..	..	624
Vizagapatam ..	145	..	28	..	73	68	314
Gōdāvari, Upper ..	(*d*) 58	..	..	(*e*) 107	264	352	781
Do. Lower ..	24	..	380	..	..	75	479
Kistna	149	..	(*b*) ..	..	..	119	268
Kurnool, East ..	..	147	562	..	291	..	1,000
Do. South ..	(*c*) 685	..	(*c*) 81	..	..	..	766
Do. West ..	469	..	..	..	..	398	867
Total ..	1,972	329	1,051	107	628	1,012	5,099
Central Circle.							
Bellary	..	..	..	89	418	175	682
Anantapur ..	426	..	..	..	326	..	752
Guntūr	8	..	164	4	638	..	814
Cuddapah, West ..	39	..	17	77	596	..	729
Do. East ..	(*f*) 157	47	17	..	863	..	1,084
Nellore	(*f*) 200	..	19	1	503	..	723
Chingleput ..	(*f*) 208	..	..	..	..	..	208
Chittoor	(*f*) 781	..	..	..	50	..	831
Total ..	1,819	47	217	171	3,394	175	5,823
Southern Circle..							
North Vellore ..	(*g*) 476	..	..	2	..	..	478
South do. ..	(*g*) 713	12	..	..	..	..	725
South Arcot .	(*j*) 163	..	132	..	18	40	353
North Salem ..	161	..	(*h*) 670	..	..	..	831
South do. ..	(*i*) 452	53	73	..	18	2	{ 598 1
Trichinopoly ..	184	..	26	..	52	75	337
Madura	356	..	..	3	301	..	660
Tinnevelly ..	246	..	..	..	32	151	429
Total ..	2,751	65	901	5	421	268	4,412
			Reserved forests.				
Western Circle.							
Mangalore, North.	(*a*) 358	..	..	..	4	..	362
Do. South.	(*a*) 436	..	..	..	..	..	436
Malabar, North ..	178	..	53	..	32	..	263
Do. South ..	7	..	..	..	95	37	139
The Nilgiris ..	107	..	..	..	368	..	475
Kollegal	53	..	22	..	160	495	730
Coimbatore, North.	289	..	..	..	627	..	916
Do. Central.	220	..	..	..	54	89	363
Do. South.	{ 75 (*k*) + 1 }	..	..	..	34	317	427
Total ..	1,724	..	75	..	1,374	938	4,111

(*a*) Revised figures furnished by the District Forest officer.
(*b*) The preparation of the working plan for the area noted in column 4 of the previous year was given up.
(*c*) The difference between these and previous years figures is due to slight adjustment in range figures.
(*d*) Area of the Bhadrachellam working-plan.
(*e*) Area of reserved forest in Marrigudem range for which a working-plan is under preparation.
(*d*) and (*e*) Correct figures as per Survey of India Sheets now reported by the District Forest officer.
(*f*) Reduction due to cancellation of portions of working-plans or disafforestation of areas.
(*g*) Fourteen square miles were transferred from North to South Vellore and deduction of 1 square mile in each division was due to the correct computation of area.
(*h*) Difference of 7 square miles due to area excluded at settlement.
(*i*) The 17 miles entered in column 3 of the previous year's return was not added as the area was already covered by a working-plan.
(*j*) The increase of 8 square miles is due to transfer of Tanjore ranger reserves already under working-plan.
(*k*) Wrongly included in column 6 in previous years.

Progress made in working-plans during 1915–16—*cont.*

District.	Areas for which working-plans have been completed and approved by the Board.		Areas for which working-plans are being compiled or have been compiled but not sanctioned.		Areas for which working-plans have still to be taken in hand.	Areas for which working-plans are not at present required.	Total forest area, as in form No. 65.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.			
	Reserved lands.						
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.
Western Circle—cont.							
Malabar, North ..	..	..	..	..	..	*	*
The Nilgiris ..	..	..	..	..	1	(*a*) 8	9
Kollegal	..	..	..	..	..	*	*
Coimbatore, North.	..	..	..	..	1	..	1
Do. Central.	..	..	..	..	..	1	1
Do. South.	..	..	..	..	*	..	*
Total ..	..	..	..	..	2	9	11
	Leased forests.						
Malabar, South ..	24	..	..	..	..	..	24
The Nilgiris ..	76	..	..	..	..	..	76
Coimbatore, South.	..	..	..	..	27	..	27
Total ..	100	..	..	..	27	..	127
Grand total ..	1,824	..	75	..	1,403	947	4,249
Grand total, Presidency.	8,366	441	2,244	283	5,846	2,402	19,583

* Less than one square mile.
(*a*) Includes 5 squares miles of toda patta land.

Annual Form No. 70.

Forest Department, Madras Presidency.

Communications and Buildings during 1915–16.

District.	Roads (including bridle-paths and culverts). New works. Length.	Roads New works. Cost.	Roads Repairs. Length.	Roads Repairs. Cost.	Buildings. Cost of new works.	Buildings. Cost of repairs.	Other works. Cost of new works.	Other works. Cost of repairs.
	M. F. CH.	RS.	M. F. CH.	RS.	RS.	RS.	RS.	RS.
Northern Circle.								
Ganjām	3 1 0	2,523	33 6 0	(a) 1,842 (e) + 7	(j) 2,788	(a) (k) 4,073 (e) — 6	83	10 (e) + 1
Vizagapatam	(b) 9 2 0	(b) 98	12 2 0	160 (e) + 1	322	1,210 (e) — 10	..	..
Gōdāvari, Upper ..	(b) 65 3 0	(b) 2,804	..	..	93	(a) 1,409	931	..
Do. Lower ..	(b) 35 3 0	70	55 4 3⅓	(a) 1,998 (e) — 52	2,694	(a) 2,409	816	..
Kistna	0 5 0	1,929	14 5 0	753	381	(a) 298	..	30
Kurnool, East	(c) 60 0 0	3,578	108 6 0	7,758	4,413	1,754	557	380
Do. South	..	..	30 5 0	(d) 5,443	1,853	716	107	65
Do. West	68 2 3	2,244	20 0 0	127 (e) + 179	249	2,281 (e) — 278	78	198 (e) + 282
Total ..	242 0 3	13,246	275 4 3⅓	18,081 (e) + 135	12,793	14,150 — 294	2,572	683 (e) + 283
Central Circle.								
Bellary	..	..	34 7 0	870	..	865	..	30
Anantapur	..	7	5 7 0	724	451	2,302	62	36
Guntūr	..	..	13 0 0	275	..	1,317	..	186
Cuddapah, West ..	1 4 0	446	26 1 0	1,073	1,988	853	116	52
Do. East ..	36 0 0	3,833	54 2 0	1,455	6,439	685	105	185
Nellore	40 6 0	1,691	..	..	2,096	866	.	12
Chingleput	0 4 0	38	16 6 0	819	863	549	..	74
Chittoor	6 6 0	1,519	31 6 0	431	116	3,071	..	8
Total ..	85 4 0	7,534	182 5 0	5,647	11,953	10,508	283	583
Southern Circle.								
Vellore, North	10 0 0	58	32 0 0	1,104	3,868	776 + (f) 363	384	609
Do. South	4 0 0	206	31 0 0	1,507	5,000	847 + (f) 544	106	39
South Arcot *cum* Tanjore.	4 0 0	293	..	.	940	462 + (f) 418	..	18
Salem, North	4 0 0	1,024	98 0 0	1,502	3,404	1,958 + (f) 175	930	153
Do. South	16 0 0	2,433	51 0 0	952	2,685	1,422 + (f) 519	2	63
Trichinopoly	..	..	108 0 0	1,805	470	554 + (f) 703	52	63
Madura	2 0 0	953	106 0 0	5,488	2,151	2,468 + (f) 864	474	188
Tinnevelly	2 0 0	404	30 0 0	2,639	4,516 (g) + 41	2,516 + (f) 416	145	244 (g) — 59
Total ..	42 0 0	5,371	456 0 0	14,997	23,075	15,005	2,093	1,318
Western Circle.								
Mangalore, North ..	0 2 0	110	3 5 0	175	3,530	165 (f) 160	54	3
Do. South ..	12 6 0	887	21 0 0	619	5,256	473	19	136
Malabar, North	17 0 0	1,342	84 0 0	2,513	5,875	2,559 (f) 463	275	252
Do. South	14 4 0	1,322	80 5 0	1,720	2,795	1,544	1,634	142
The Nilgiris	15 3 0	3,335	47 3 0	3,276	2,560	1,144	733	1
Kollegal	..	..	45 6 0	3,811	1,342	1,105 (f) 342	226	..
Coimbatore, North ..	4 0 0	4,479	95 0 0	4,445	6,927	282 (f) 390	657	..
Do. Central ..	..	(h) 171	36 0 0	853	2,922	1,477	..	64
Do. South ..	7 7 0	(i) 5,529	24 5 0	7,947 • 316	1,692	1,671	22	246
Direction	..	.	..	..	..	121	..	..
Total ..	71 6 0	(i) 17,175	438 0 0	25,675	32,899	11,896	3,620	844
Grand total, Presidency ..	441	43,326	1,352	64,535	80,720	51,265	8,568	3,711

(a) Includes cost of establishment. (b) Includes alignment. (c) Includes foot-paths
(d) Includes the contribution to District Board for maintenance of ghat roads. (e) Variations as per audited figures.
(f) Represents pay of establishment.
(g) Added or subtracted to tally with Accountant-General's audited figure.
(h) Spent on aligning a new road.
(i) Excludes Rs 372 wrongly debited to this head by the Accountant-General.
(j) Excludes Rs. 1,814 spent on the construction of combined range quarters of the Chandragiri range, Parlakimedi Maliahs
(k) Excludes Rs. 40 spent on repairs to the existing buildings in Parlakimedi Maliahs.

ANNUAL FORM No. 71.

Forest Department, Madras Presidency.

REGISTER of Breaches of Forest Rules during 1915–16.

District.		Cases pending from 1914–15.	New cases of the year. Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Total cases.	Disposed of during the year. Convictions. Cases.	Convictions. Persons.	Acquittals. Cases.	Acquittals. Persons.	Total. Cases.	Total. Persons.	Cases pending at close of year.
Northern Circle.															
Ganjām ..	A ..	29	3	71	7	8	89	118	84	296	14	59	98	355	20
	B ..	52	3	331	17	10	361	413	..	..	310 * 64	1,087 259	310 * 64	1,087 259	39
	C ..	..	56	37	..	..	93	..	..	..	..	..	..	..	..
Total ..		(b) 81	(c) 62	(d) 439	(e) 24	(f)18	(g)543	(h)531	(i) 84	(j) 296	(k)324 * 64	(l) 1,146 259	(m) 408 * 64	(n)1 442 259	(o)59
Vizagapatam.	A ..	21	2	91	19	15	127	391	131	336	5	19	136	355	12
	B ..	37	1	268	53	32	354	148	..	..	334 * 32	816 185	334 * 32	816 185	25
	C ..	..	25	1	..	..	26	..	..	..	..	..	..	..	..
Total ..		58	28	360	72	47	507	539	131	336	339 * 32	835 185	470 * 32	1,171 185	37
Gōdāvari, Upper.	A ..	1	..	5	1	..	6	7	3	6	1	2	4	8	3
	B ..	11	2	45	7	16	70	81	..	..	50 * 13	77 31	50 * 13	77 31	18
	C ..	..	43	..	..	..	43	..	..	..	..	..	..	..	..
Total ..		12	45	50	8	16	119	88	3	6	51 * 13	79 31	54 * 13	85 31	21
Gōdāvari, Lower.	A ..	14	2	47	9	7	65	79	31	148	6	34	37	182	42
	B ..	55	1	225	47	46	319	374	..	..	278 * 40	656 80	278 * 40	656 80	56
	C ..	..	..	3	..	..	3	..	..	..	..	..	..	..	..
Total ..		69	3	275	56	53	387	453	31	148	284 * 40	690 80	315 * 40	838 80	98
Kistna ..	A ..	36	..	20	46	4	70	106	93	298	5	29	98	327	8
	B .	42	..	153	110	6	269	311	..	..	216 * 39	543 141	216 * 39	543 141	56
	C .	..	..	18	6	..	24	..	..	..	..	..	..	..	..
Total ..		(a) 78	..	191	162	10	363	417	93	298	221 * 39	572 141	314 * 39	870 141	64
Kurnool, East.	A ..	31	..	15	17	..	32	63	46	147	14	32	60	179	3
	B ..	50	3	235	128	4	370	420	..	..	349 * 33	720 118	349 * 33	720 118	38
	C ..	..	..	10	1	..	11	..	..	..	..	..	..	..	..
Total ..		81	3	260	146	4	413	483	46	147	363 * 33	752 118	409 * 33	899 118	41
Kurnool, South.	A ..	34	2	109	11	3	125	159	126	321	9	19	135	340	24
	B ..	26	..	297	121	8	426	452	..	..	352 * 50	623 163	352 * 50	623 163	50
	C ..	..	23	71	10	..	104	..	..	..	..	..	..	..	..
Total ..		60	25	477	142	11	655	611	126	321	361 * 50	642 163	487 * 50	963 163	74
Kurnool, West.	A ..	60	1	113	38	15	167	227	208	623	10	91	218	714	9
	B ..	55	..	423	129	10	562	617	..	..	521 * 53	1,555 232	521 * 53	1,555 232	43
	C ..	..	69	66	4	..	139	..	..	..	..	..	..	..	..
Total ..		115	70	602	171	25	868	844	208	623	531 * 53	1,646 232	739 * 53	2,269 232	52
Total, Northern Circle.	A ..	226	10	471	148	52	681	907	722	2,175	64	285	786	2,460	121
	B ..	328	10	1,977	612	132	2,731	3,059	..	..	2,410 * 324	6,077 1,209	2,410 * 324	6,077 1,209	325
	C ..	..	216	206	21	..	443	..	..	..	..	..	..	..	..
Grand Total, Northern Circle.		554	236	2,654	781	184	3,855	3,966	722	2,175	2,474 * 324	6,362 1,209	3,196 * 324	8,537 1,209	446

A = Cases taken into Court. B = Cases compounded by the District Forest Officer or Revenue Divisional Officer.
C = Cases undetected.

* Cases withdrawn under the orders of the District Forest Officer or Revenue Divisional Officer.

Note.—Northern Circle.—Variations between the closing balance of 1914–15 and the opening balance of 1915–16 are due to transfer of cases between A and B.

(a) Correct figure adopted as reported by the District Forest Officer.
(b) Excludes 76 cases belonging to Parlākimedi Maliahs.
(c) Do. 5 do. do.
(d) Do. 260 do. do.
(e) Do 24 do. do.
(f) Do. 13 do. do.
(g) Do. 302 do. do.
(h) Do. 378 do. do.
(i) Do. 222 cases taken to Court in do.
(j) Excludes 567 persons concerned in 222 cases belonging to Parlākimedi Maliahs.
(k) Excludes 59 cases compounded in Parlākimedi Maliahs.
(l) Do. 181 persons involved in the 59 compounded cases in Parlākimedi Maliahs.
(m) Excludes 281 disposed of cases in Parlākimedi Maliahs.
(n) Do. 748 persons involved in 281 cases in Parlākimedi Maliahs.
(o) Do. 97 pending cases in Parlākimedi Maliahs.

Register of Breaches of Forest Rules during 1915–16—*cont.*

District.		Cases pending from 1914–15.	New cases of the year. Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Total cases.	Disposed of during the year. Convictions. Cases.	Convictions. Persons.	Acquittals. Cases.	Acquittals. Persons.	Total. Cases.	Total. Persons.	Cases pending at close of year.
Central Circle.															
Bellary	A	9	4	131	125	34	294	303	268	625	18	66	286	691	17
	B	152	1	387	474	33	895	1,047	..	..	827	1,980	827 * 89	1,980 268	131
	C	..	..	..	56	..	56	..	..	..	..	..	..	..	..
Total		161	5	518	655	67	1,245	1,350	268	625	845	2,046	1,113 * 89	2,671 268	148
Anantapur.	A	129	..	133	78	12	223	352	233	477	89	257	322	734	30
	B	88	1	591	213	23	828	916	..	..	730	1,769	730	1,769	186
	C	..	135	49	263	..	447	..	..	..	..	..	..	..	..
Total		217	136	773	554	35	1,498	1,268	233	477	819	2,026	1,052	2,503	216
Guntur	A	188	..	201	295	13	509	697	473	2,079	25	118	498	2,197	199
	B	350	..	481	782	14	1,277	1,627	..	..	1,314	3,825	1,314 * 105	3,825 419	208
	C	..	..	81	9	..	90	..	..	..	..	..	..	..	..
Total		538	..	763	1,086	27	1,876	2,324	473	2,079	1,339	3,943	1,812 * 105	6,022 419	407
Cuddapah, West.	A	(a) 174	7	134	155	19	315	489	428	821	28	58	456	879	33
	B	(a) 75	..	277	187	36	500	575	..	..	445	1,160	445 * 40	1,160 119	90
	C	..	..	2	8	..	10	..	..	..	..	..	..	..	..
Total		249	7	413	350	55	825	1,064	428	821	473	1,218	901 * 40	2,039 119	123
Cuddapah, East.	A	(a) 49	6	82	39	4	131	180	155	377	17	27	172	404	8
	B	(a) 92	2	507	192	7	708	800	..	..	662	1,569	662 * 46	1,569 111	92
	C	..	..	3	..	..	3	..	..	..	..	..	..	..	..
Total		141	8	592	231	11	842	980	155	377	679	1,596	834 * 46	1,973 111	100
Nellore	A	(a) 124	1	110	243	1	355	479	294	607	48	268	342	875	137
	B	(a) 266	1	459	368	5	833	1,099	..	..	905	1,713	905	1,713	194
	C	..	2	18	87	1	108	..	..	..	..	..	..	..	..
Total		390	4	587	698	7	1,296	1,578	294	607	953	1,981	1,247	2,588	331
Chingleput.	A	(a) 60	1	218	93	7	319	379	205	557	..	..	205	557	174
	B	(a) 95	..	529	260	13	802	897	..	..	859	1,626	859 * 31	1,626 78	7
	C	..	9	..	..	..	9	..	..	..	..	..	..	..	..
Total		155	10	747	353	20	1,130	1,276	205	557	859	1,626	1,064 * 31	2,183 78	181
Chittoor	A	21	1	73	58	8	140	161	138	325	19	54	157	379	4
	B	146	..	582	361	18	961	1,107	..	..	915	1,287	915 * 100	1,287 228	92
	C	..	161	..	..	..	161	..	..	..	..	..	..	..	..
Total		167	162	655	419	26	1,262	1,268	138	325	934	1,341	1,072 * 100	1,666 228	96
Total, Central Circle.	A	(a) 754	20	1,082	1,086	98	2,286	3,040	2,194	5,868	244	848	2,438	6,716	602
	B	(a) 1,264	5	3,813	2,837	149	6,804	8,068	..	..	6,657 * 411	14,929 1,223	6,657 * 411	14,929 1,223	1,000
	C	..	307	153	423	1	884	..	..	..	..	..	..	..	..
Central Circle Grand Total.		2,018	332	5,048	4,346	248	9,974	11,108	2,194	5,868	6,901 * 411	15,777 1,223	9,095 * 411	21,645 1,223	1,602

A = Cases taken into Court. B = Cases compounded by the District Forest Officer or Revenue Divisional Officer. C = Cases undetected.

(a) Variations between the closing balance of 1914–15 and the opening balance of 1915–16 are due to transfer of cases between A and B.

* Cases withdrawn under the orders of the District Forest Officer or Revenue Divisional Officer.

Register of Breaches of Forest Rules during 1915–16—*cont.*

District	Cases pending from 1914–15.	New cases of the year: Injury to forest by fire.	New cases of the year: Unauthorized felling or appropriation of wood and minor forest produce.	New cases of the year: Grazing without permission or in tracts in which grazing is prohibited.	New cases of the year: Other offences.	New cases of the year: Total new cases of the year.	Total cases.	Disposed of during the year: Convictions: Cases.	Convictions: Persons.	Acquittals: Cases.	Acquittals: Persons.	Total: Cases.	Total: Persons.	Cases pending at close of year.
Southern Circle.														
Vellore. A ..	74--26	1	324	162	6	493	541	384	961	9	25	393 * 1	986 3	147
Vellore. B ..	226+26	..	697	259	4	960	1,212	..	..	1,122	2,165	1,122 * 58	2,165 140	32
Vellore. C ..	..	86	1	29	..	116	..	..	..	..	..	..	..	..
Total ..	300	87	1,022	450	10	1,569	1,753	384	961	1,131	2,190	1,515 * 59	3,151 143	179
South Vellore A ..	118+82	..	223	31	5	259	459	344	829	23	60	367 * 16	889 39	76
South Vellore B ..	238−82	..	854	215	9	1,078	1,234	..	..	1,081	2,378	1,081 * 36	2,378 129	117
South Vellore C ..	..	166	4	..	..	170		..	..	..	..	..	..	..
Total .	356	166	1,081	246	14	1,507	1,693	344	829	1,104	2,438	1,448 * 52	3,267 168	193
South Arcot. A ..	75+262	..	644	131	13	788	1,125	870	2,075	80	459	950 * 16	2,534 20	159
South Arcot. B ..	440−146	..	1,865	286	27	2,178	2,472	..	..	1,780	2,788	1,780 * 109	2,788 207	583
South Arcot. C .		7	49	2	..	58	..	..	..	..	..	..	.	..
Total	631 515+116(*a*)	7	2,558	419	40	3,024	3,597	870	2,075	1,860	3,247	2,730 * 125	5,322 227	742
North Salem. A ..	19+72	1	275	62	16	354	445	390	762	20	48	410	810	35
North Salem. B ..	270--72	..	926	274	71	1,271	1,469	..	..	1,111	1,769	1,111 * 110	1,769 256	248
North Salem. C ..	..	131	5	2	..	138	..	.	..	..	..	..	..	..
Total ..	289	132	1,206	338	87	1,763	1,914	390	762	1,131	1,817	1,521 * 110	2,579 256	283
South Salem. A ..	112+21	6	205	35	25	271	404	317	1,313	7	34	324	1,347	80
South Salem. B ..	171--21	..	650	113	32	795	945	..	..	588	1,668	588 * 52	1,668 187	305
South Salem. C ..		102	14	9	..	125	..	..	..	..	..	..	..	..
Total ..	283	108	869	157	57	1,191	1,349	317	1,313	595	1,702	912 * 52	3,015 187	385
Trichinopoly. A ..	34+125	2	345	31	6	384	543	469	903	·21	90	490 * 9	993 53	44
Trichinopoly. B ..	386−125	2	835	153	17	1,607	1,268	..	..	839	1,193	839 * 36	1,193 87	393
Trichinopoly. C ..	..	..	30	1	..	31	..	..	..	..	..	..	..	..
Total	420 536—116(*a*) and (*b*)	4	1,210	185	23	1,422	1,811	469	903	860	1,283	1,329 * 45	2,186 140	437
Madura .. A ..	128+336	9	898	174	24	1,105	1,569	969	3,801	41	161	1,010 * 17	3,962 73	542
Madura .. B ..	446−336	..	587	149	21	757	867	..	..	601	1,264	601 * 60	1,264 105	206
Madura .. C ..	. . .	132	10	..	..	142		..	..	..	..	..	..	..
Total ..	574	141	1,495	323	45	2,004	2,436	969	3,801	642	1,425	1,611 * 77	5,226 178	748
Tinnevelly. A ..	15	2	156	50	10	218	233	205	466	(*b*) 9	29	214	495	19
Tinnevelly. B .	118	2	498	253	32	785	903	..	..	776	1,583	776	1,583	127
Tinnevelly. C ..	..	6	7	..	..	13	..	..	..	..	..	..	..	..
Total ..	133	10	661	303	42	1,016	1,136	205	466	785	1,612	990	2,078	146
Total, Southern Circle. A ..	1,447	21	3,070	676	105	3,872	5,319	3,948	11,110	210 * 59	906 188	4,158 * 59	12,016 188	1,102
Total, Southern Circle. B ..	1,539	4	6,912	1,702	213	8,831	10,370	..	..	7,898 * 461	14,808 1,111	7,898 * 461	14,808 1,111	2,011
Total, Southern Circle. C ..	..	630	120	43	..	793	..	..	..	..	..	..	..	..
Grand Total, Southern Circle.	2,986	655	10,102	2,421	318	13,496	15,689	3,948	11,110	8,108 * 520	15,714 1,299	12,056 * 520	26,824 1,299	3,113

A = Cases taken to Court. B = Cases compounded. C = Cases undetected.

(*a*) Represents transfer from Trichinopoly to South Arcot on account of Tanjore district. * Cases withdrawn.

(*b*) Corrected in the Board's office.

Note.—Alterations in column 2 represent transfers between A and B.

Register of Breaches of Forest Rules during 1915–16—*cont.*

District.		Cases pending from 1914–15.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of the year.
			Injury to forests by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Western Circle.															
Mangalore, North.	A ..	(a) 15	3	17	3	8	31	46	33	95	3	7	36	102	10
	B ..	(a) 145	1	634	82	65	782	927	..	..	795	1,492	795 * 71	1,492 139	61
	C ..	..	35	..	..	..	35	..	..	..	..	..	..	..	..
Total ..		160	39	651	85	73	848	973	33	95	798	1,499	831 * 71	1,594 139	71
Mangalore, South.	A ..	(a) 2	17	62	12	17	108	110	48	91	27	78	75	169	35
	B ..	(a) 116	16	269	54	20	359	475	..	..	380	756	380 * 40	756 70	55
	C ..	..	32	..	..	..	32	..	..	..	..	..	..	..	..
Total ..		118	65	331	66	37	499	585	48	91	407	834	455 * 40	925 70	90
Malabar, North.	A .	1	1	..	..	.	1	2	1	4	..	..	1	4	1
	B ..	8	1	24	1	1	27	35	..	..	30	32	30 * 3	32 11	2
	C ..	..	11	..	..	.	11	..	.	..	..	..	..	..	..
Total ..		9	13	24	1	1	39	37	1	4	30	32	31 * 3	36 11	3
Malabar, South.	A ..	2	..	1	..	3	4	6	5	8	..	..	5 * 1	8 2	..
	B ..	..	..	7	10	13	30	30	..	..	27	42	27 * 1	42 2	2
	C ..	..	3	..	..	..	3	..	..	..	..	..	..	..	..
Total ..		2	3	8	10	16	37	36	5	8	27	42	32 * 2	50 4	2
The Nilgiris.	A ..	(a) 26	6	49	41	18	114	140	112	306	5	10	117	316	23
	B ..	(a) 26	5	97	101	9	212	238	..	..	165	443	165 * 40	443 84	33
	C ..	..	24	..	9	..	33	..	..	..	..	..	..	..	..
Total ..		52	35	146	151	27	359	378	112	306	170	453	282 * 40	759 84	56
Kollegal.	A ..	6	..	21	17	11	49	55	37	84	11	38	48	122	7
	B ..	27	..	74	34	2	110	137	..	..	110	155	110 * 5	155 11	22
	C ..	..	26	6	4	2	38	..	..	..	..	..	..	..	..
Total ..		33	26	101	55	15	197	192	37	84	121	193	158 * 5	277 11	29
Coimbatore, North.	A ..	40	3	84	30	4	121	161	118	265	7	10	125	275	36
	B ..	59	..	339	107	4	450	509	..	..	438	806	438 * 29	806 85	42
	C ..	..	216	..	..	..	216	..	..	..	..	..	..	..	..
Total ..		99	219	423	137	8	787	670	118	265	445	816	563 * 29	1,081 85	78
Coimbatore, Central.	A ..	(a) 81	10	121	27	19	177	258	178	562	11	34	189 * 13	596 28	56
	B ..	(a) 27	2	102	63	44	211	238	..	..	211	504	211	504	27
	C ..	..	71	9	..	1	81	..	..	..	..	..	..	..	..
Total ..		108	83	232	90	64	469	496	178	562	222	538	400 * 13	1,100 28	83
Coimbatore, South.	A ..	(a) 32	1	55	12	6	74	106	78	203	5	11	83	214	23
	B ..	(a) 27	..	153	31	9	193	220	..	..	185	458	185	458	35
	C ..	..	38	10	5	5	58	..	..	..	..	..	..	..	..
Total ..		59	39	218	48	20	325	326	78	203	190	469	268	672	58
Total, Western Circle.	A ..	205	41	410	142	86	679	884	610	1,618	69 * 14	188 30	679 * 14	1,806 30	191
	B ..	435	25	1,699	483	167	2,374	2,809	..	..	2,341 * 189	4,688 402	2,341 * 189	4,688 402	279
	C ..	..	456	25	18	8	507	..	..	..	..	..	..	..	..
Grand Total, Western Circle.		640	522	2,134	643	261	3,560	3,693	610	1,618	2,410 * 203	4,878 432	3,020 * 203	6,494 432	470
Total, Presidency.	A ..	2,632	92	5,033	2,052	341	7,518	10,150	7,474	20,771	587 * 73	2,227 218	8,061 * 73	22,998 218	2,016
	B ..	3,566	44	14,401	5,634	661	20,740	24,306	..	..	19,306 *1,385	40,502 3,945	19,306 * 1,385	40,502 3,945	3,615
	C ..	..	1,609	504	505	9	2,627	..	..	..		..	..		..
Grand Total, Presidency.		6,198	1,745	19,938	8,191	1,011	30,885	34,456	7,474	20,771	19,893 *1,458	42,729 4,163	27,367 * 1,458	63,500 * 4,163	5,631

A = Cases taken into Court. B = Cases compounded. C = Cases undetected.

(a) The variations between the closing balance of 1914–15 and these figures are due to transfers between heads A and B.

* Withdrawn under the orders of the District Forest or Revenue Divisional Officer.

Annual Form No. 72.

Forest Department, Madras Presidency.

Area of forest tracts protected from fire during 1915–16.

District.	Forest tracts.	Area protected during the previous year.	During the year under report. Area attempted to be protected.	Fires.	Actually protected.	Cost during the year under report.
	Northern Circle.	ACS.	ACS.	ACS.	ACS.	RS.
Ganjām	Special protection	102,407	86,077	846	85,231	3,809
	General do.	37,494	172,159	17,276	154,883	1,211
	Total, Ganjām	(d) 139,901	(e) 258,236	(f) 18,122	(g) 240,114	(h) 5,020
Vizagapatam.	Special protection	64,871	68,804	182	68,622	1,451
	General do.	114,471	113,783	4,862	108,921	162
	Total, Vizagapatam	179,342	182,587	5,044	177,543	1,613
Gōdāvari, Upper.	Special protection	468,814	533,907	134,138	399,769	7,910*
	General do.	..	..	..	..	..
	Total, Gōdāvari, Upper	468,814	533,907	134,138	399,769	7,910
Gōdāvari, Lower.	Special protection	..	..	..	..	..
	General do.	239,539	240,870	7,676	233,194	5,035
	Total, Gōdāvari, Lower	239,539	240,870	7,676	233,194	5,035
Kistna	Special protection	56,977	46,033	2,954	43,079	1,430
	General do.	3,219	1,609	..	1,609	..
	Total, Kistna	60,196	47,642	2,954	44,688	1,430
Kurnool, East.	Special protection	136,091	201,516	99,124	102,392	11,332
	General do.	487,328	438,786	1,743	437,043	..
	Total, Kurnool, East	623,419	640,302	100,867	539,435	11,332
Kurnool, South.	Special protection	(a) 283,857	362,070	98,065	264,005	11,660
	General do.	(a) 123,764	128,384	2,377	126,007	..
	Total, Kurnool, South	407,621	490,454	100,442	390,012	11,660
Kurnool, West.	Special protection	(b) 140,715	146,635	42,474	104,161	13,442
	General do.	(b) 366,972	408,436	41,800	366,636	..
	Total, Kurnool, West	507,687	555,071	(c) 84,274	(c) 470,797	13,442
Total	Special protection	1,253,732	1,445,042	377,783	1,067,259	51,034
	General do.	1,372,787	1,504,027	75,734	1,428,293	6,408
	Grand total	2,626,519	2,949,069	(c) 453,517	(c) 2,495,552	57,442
	Central Circle.					
Bellary	Special protection	90,318	74,755	30,113	44,642	3,909
	General do.	719	796	..	796	..
	Total	91,037	75,551	30,113	45,438	3,909
Anantapur	Special protection	410,334	415,679	54,978	360,701	5,057
	General do.	52,422	52,460	6,648	45,812	..
	Total	462,756	468,139	61,626	406,513	5,057
Guntūr	Special protection	13,284	13,334	50	13,284	15
	General do.	21,201	21,203	219	20,984	..
	Total	34,485	34,537	269	34,268	15
Cuddapah, West.	Special protection	199,701	248,957	31,735	217,222	3,674
	General do.	83,128	104,984	5,150	99,834	716
	Total	282,829	353,941	36,885	317,056	4,390
Cuddapah, East.	Special protection	93,329	378,647	88,899	289,748	4,966
	General do.	260,458	152,180	26,874	125,306	622
	Total	353,787	530,827	115,773	415,054	5,588
Nellore	Special protection	128,507	131,403	5,981	125,422	1,230
	General do.	..	..	..	..	..
	Total	128,507	131,403	5,981	125,422	1,230

* Represents rewards for results of 1914–15.

(a) The difference between closing balance of the previous year and the opening balance of the year under report is due to transfer of 27,922 acres from general to special protection.
(b) Correct figure now reported.
(c) Corrected in the Board's office.
(d) Excludes 90,417 acres under general protection in the Parlākimedi Maliahs.
(e) Do. 114,053 do. do.
(f) Do. 14,864 burnt in the Parlākimedi Maliahs.
(g) Do. 99,189 acres actually protected in the Parlākimedi Maliahs.
(h) Do. Rs. 484 spent on fire protection in the Parlakimedi Maliahs.

Area of forest tracts protected from fire during 1915-16—*cont.*

District.	Forest tracts.	Area protected during the previous year.	During the year under report.			Cost during the year under report.
			Area attempted to be protected.	Fires.	Actually protected.	
	Central Circle—cont.	ACS.	ACS.	ACS.	ACS.	RS.
Chingleput..	Special protection ..	25,505	25,540	151	25,389	942
	General do. .	107,602	107,542	100	107,442	..
	Total ..	133,107	133,082	251	132,831	942
Chittoor ..	Special protection ..	135,815	132,882	11,567	121,315	1,249
	General do. ..	332,215	403,270	16,471	386,799	..
	Total ..	468,030	536,152	28,038	508,114	1,249
Total ..	Special protection ..	1,096,793	1,421,197	223,474	1,197,723	21,042
	General do. ..	857,745	842,435	55,462	786,973	1,338
	Total ..	1,954,538	2,263,632	278,936	1,984,696	22,380
	Southern Circle.					
Vellore, North.	Special protection ..	49,864	35,116	3,532	31,584	649
	General do. ..	278,293	269,677	9,940	259,737	..
	Total ..	328,157	304,793	13,472	291,321	649
Vellore, South.	Special protection ..	122,215	116,046	16,291	99,755	455
	General do. ..	321,022	328,906	20,779	308,127	..
	Total ..	443,237	444,952	37,070	407,882	455
South Arcot. *cum* Tanjore	Special protection ..	13,541	13,541	5	13,536	139
	General do. ..	201,272	212,127	116	212,011	..
	Total ..	214,813	225,668	121	225,547	139
Salem, North	Special protection ..	62,196	61,738	8,916	52,822	3,437
	General do. ..	469,566	470,446	9,867	460,579	
	Total ..	531,762	532,184	18,783	513,401	3,437
Salem, South	Special protection ..	216,887	211,731	14,888	196,843	1,755
	General do. ..	154,105	167,085	2,140	164,945	..
	Total ..	370,992	378,816	17,028	361,788	1,755
Trichinopoly.	Special protection ..	22,093	88,355	483	87,872	503
	General do. ..	81,596	117,993	23	117,970	..
	Total ..	103,689	206,348	506	205,842	503
Madura ..	Special protection ..	125,918	178,573	12,462	166,111	5,181
	General do. ..	288,850	239,595	10,847	228,748	..
	Total ..	414,768	418,168	23,309	394,859	5,181
Tinnevelly	Special protection ..	30,266	35,377	1,277	34,100	5,100
	General do. ..	204,392	206,712	5,733	200,979	..
	Total ..	234,658	242,089	7,010	235,079	5,100
	Total, Special protection.	642,980	740,477	57,854	682,623	17,219
	Total, General protection.	1,999,096	2,012,541	59,445	1,953,096	..
	Grand total (Special and General) Protection.	2,642,076	2,753,018	117,299	2,635,719	17,219
Mangalore, North.	Special protection ..	35,120	39,388	415	38,973	1,168
	General do. ..	195,830	192,659	879	191,780	621
	Total ..	230,950	232,047	1,294	230,753	1,789
Mangalore, South.	Special protection ..	106,927	107,341	856	106,485	1,208 † + 213
	General do. ..	171,063	171,451	1,046	170,405	984
	Total ..	277,990	278,792	1,902	276,890	2,405
Malabar, North.	Special protection ..	139,040	139,089	4,410	134,679	7,054
	General do. ..	..	..	..	..	..
	Total ..	139,040	139,089	4,410	134,679	7,054

† Fire tracing—South Canara-Mysore boundary.

Area of forest tracts protected from fire during 1915–16—*cont.*

District.	Forest tracts.	Area protected during the previous year.	During the year under report. Area attempted to be protected.	Fires.	Actually protected.	Cost during the year under report.
	Western Circle.	ACS.	ACS.	ACS.	ACS.	RS.
Malabar, South.	Special protection ..	82,107	82,117	1,748	80,369	2,675
	General do. ..	..	..	..	..	..
	Total ..	82,107	82,117	1,748	80,369	2,675
The Nilgiris.	Special protection ..	74,353	74,530	11,263	63,267	3,903
	General do. ..	..	..	..	..	..
	Total ..	74,353	74,530	11,263	63,267	3,903
Kollegal ..	Special protection ..	64,390	67,717	2,009	65,708	3,131
	General do. ..	392,459	399,490	36,294	363,196	..
	Total ..	456,849	467,207	38,303	428,904	3,131
Coimbatore, North.	Special protection ..	71,634	72,484	48,114	24,370	3,313
	General do. ..	509,263	513,688	214,656	299,032	..
	Total ..	580,897	586,172	262,770	323,402	3,313
Coimbatore, Central.	Special protection ..	104,975	91,703	6,319	85,384	2,455
	General do. ..	120,730	140,627	4,246	136,381	..
	Total ..	225,705	232,330	10,565	221,765	2,455
Coimbatore, South.	Special protection ..	45,500	47,261	1,923	45,338	2,278
	General do. ..	175,600	181,104	1,653	179,451	..
	Total ..	221,100	228,365	3,576	224,789	2,278
	Total, Special, Western Circle.	724,046	721,630	77,057	644,573	27,398
	Total, General, Western Circle.	1,564,945	1,599,019	258,774	1,340,245	1,605
	Grand total, S. C. ..	2,288,991	2,320,649	3,35,831	1,984,818	29,003
	Total, Presidency, Special.	3,717,551	4,328,346	736,168	3,592,178	1,16,693
	General ..	5,794,573	5,958,022	449,415	5,508,607	9,351
	Grand total, Presidency ..	9,512,124	10,286,368	1,185,583	9,100,785	1,26,044

ANNUAL FORM No. 73.

Forest Department, Madras Presidency.

AREA closed and open to grazing during 1915–16.

District.	Area in square miles.						
	Closed to all animals.		Closed to both goats and sheep.		Area closed to goats only.	Open to all animals.	Total forest area as per form No. 65.
	Whole year.	Part of year.	Whole year.	Part of year.		Whole year.	
NORTHERN CIRCLE.							
Reserved forests.							
	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.	SQ. MLS.		SQ. MLS.
Ganjām	79	..	..	..	(b) 480	..	(c) 559
Vizagapatam	15	..	2	..	295	..	312
Gōdāvari, Upper	..	..	..	..	429	..	429
Do. Lower	56	..	224	..	124	..	404
Kistna	65	10	..	..	193	..	268
Kurnool, East	315	..	..	..	685	..	1,000
Do. South	565	1	..	..	200	..	766
Do. West	194	..	..	..	673	..	867
Total	1,289	11	226	..	3,079	..	4,605
Reserved lands.							
Ganjām	..	..	..	..	65	..	65
Vizagapatam	..	..	..	..	2	..	2
Gōdāvari, Upper	..	..	..	..	352	..	352
Do. Lower	..	..	..	..	75	..	75
Kistna	..	..	..	..	..	..	..
Kurnool, East	..	..	..	..	..	..	..
Do. South	..	..	..	..	..	..	..
Do. West	..	..	..	..	..	..	..
Total	..	..	..	..	494	..	494
CENTRAL CIRCLE.							
Reserved forests.							
Bellary	124	..	..	..	411	84	619
Anantapur	163	1	..	..	587	..	751
Guntūr	63	..	..	..	634	117	814
Cuddapah, West	60	..	..	..	666	..	726
Do. East	163	..	..	..	921	..	1,084
Nellore	212	..	..	..	510	..	722
Chingleput	32	11	..	..	163	2	208
Chittoor	111	33	..	..	687	..	831
Total	928	45	..	..	4,579	203	5,755
Reserved lands.							
Bellary	63	..	..	..	..	..	63
Anantapur	..	..	..	..	..	1	1
Guntūr	..	..	..	..	..	..	..
Cuddapah, West	3	..	..	..	..	..	3
Do. East	..	..	..	..	..	..	..
Nellore	1	..	..	..	..	..	1
Chingleput	..	..	..	..	..	..	..
Chittoor	..	..	..	..	..	..	..
Total	67	..	..	..	..	1	68
SOUTHERN CIRCLE.							
Reserved forests.							
North Vellore	58	..	..	..	418	..	476
South do.	50	..	..	..	675	..	725
South Arcot *cum* Tanjore	53	..	..	..	300	..	353
North Salem	96	..	..	..	696	..	792
South do.	58	23	..	..	500	..	581
Trichinopoly	34	..	..	..	297	..	331
Madura	93	..	..	..	567	..	660
Tinnevelly *cum* Ramnad	237	62	2	2	126	..	429
Total	679	85	2	2	3,579	..	4,347
Reserved lands.							
North Vellore	2	..	..	..	..	..	2
South do.	..	..	..	..	(a)	..	..
South Arcot *cum* Tanjore	..	..	..	..	..	..	..
North Salem	..	..	..	..	39	..	39
South do.	..	..	..	..	18	..	18
Trichinopoly	..	..	..	..	6	..	6
Madura	..	..	..	..	(a)	..	..
Tinnevelly *cum* Rāmnād	..	..	..	..	..	..	..
Total	2	..	..	..	63	..	65

(a) Area omitted being less than a square mile.
(b) Excludes 183 sq. miles in Parlākimedi Maliahs.
(c) Do. do.

Area closed and open to grazing during 1915–16—*cont.*

District.	Area in square miles.						
	Closed to all animals.		Closed to both goats and sheep.		Area closed to goats only.	Open to all animal	Total forest area as per form No. 65.
	Whole year.	Part of year.	Whole year.	Part of year.		Whole year.	
WESTERN CIRCLE.							
Reserved forests.							
	SQ. MLS.	SQ. MLS	SQ. MLS.		SQ. MLS.		SQ. MLS.
Mangalore, North ..	11	..	..	..	351	..	362
Do. South ..	* ..	..	..	..	436	..	436
Malabar, North	12	..	251	..	..	..	263
Do. South	143	..	..	..	..	..	143
The Nilgiris	23	..	..	..	452	..	475
Kollegal	81	..	..	..	649	..	730
Coimbatore, North ..	45	..	..	..	871	..	916
Do. Central ..	120	37	..	..	206	..	363
Do. South ..	87	..	178	..	189	..	454
Total ..	522	37	429	..	3,154	..	4,142
Reserved lands.							
Malabar, North	* ..	..	..	..	..	..	*
Do. South ..	20	..	..	..	..	..	20
The Nilgiris	4	..	..	..	81	..	85
Kollegal	..	..	..	..	*	..	*
Coimbatore, North ..	..	..	..	..	1	..	1
Do. Central ..	1	..	..	..	..	..	1
Do. South ..	..	..	..	..	*	..	*
Total ..	25	..	..	..	82	..	107
Grand total ..	547	37	429	..	3,236	..	4,249
Grand total, Presidency ..	3,512	178	657	2	15,030	204	19,583

* Less than one square mile.

ANNUAL
Forest Department,
RETURN of grazing in the

FORM No. 74.
Madras Presidency.
State forests during 1915–16.

Districts.	Grazing on payment. At enhanced or special rates. Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.	At full rates. Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
NORTHERN CIRCLE.					RS.					RS.
Ganjām	..	..	..	..	..	(a) & (t) 8,640	(a) & (u) 29,926	(a) S 93	.. Fodder grass.	(v) 8,860 112
Vizagapatam ..	(b) 280	(b) 3,504	(b) S 3,842	..	1,496	(a) 1,347	(a) 17,514	(a) S 798	..	3,864
Gōdāvari, Upper..	..	..	..	..	..	..	..	..	..	..
Do. Lower ..	(f) 1,105	(f) 487	..	..	1,011	(g) 4,528	(g) 4,861	..	.. Fodder grass.	3,479 252
Kistna	(f) 416	(f) 4,754 (i) 1,786	(f) S 1,728	..	4,205	(a) 5,003	(a) 20,434	(a) S 14,280	.. Fodder grass. Panchayat reserve.	7,046 373 1,620
Kurnool, East ..	(j) 2,418 (b) 2,654	(j) 11,113 (b) 29,117	(j) S 104 (b) S 41,616	.. ..	13,583 13,808	.. (a) 1,889	.. (a) 8,953	.. (a) S 31,608	..	5,350
Do. South ..	(b) 670	(b) 5,150	(b) S 6,850	..	2,479	(a) 3,096	(a) 17,010	(a) S 26,815	..	6,864
Do. West ..	(j) 51 (b) 4,280	(j) 3,704 (b) 13,406	(j) S 96 (b) S 14,109	(j) 11 ..	3,814 7,265	(a) 3,273	(a) 31,522	(a) S 52,303	Fodder grass. 36 cart-loads.	12,054
Total ..	11,874	73,021	S 68,345	11	47,661	27,776	130,220	S 125,897	..	49,874
Unreserved lands.										
Gōdāvari, Upper..	(c) 206	(c) 4,973	..	..	1,657	..	..	..	..	..
Do. Lower..	(f) 207	(f) 40	..	..	170	(g) 6,697	(g) 8,173	(a) S 820	.. Fodder grass.	5,469 1,861
Kistna	..	..	..	..	..	(a) 802	(a) 133	(a) S 50	.. Fodder grass.	330 89
Total ..	413	5,013	..	..	1,827	7,499	8,306	S 870	..	7,749
Grand total ..	12,287	78,034	68,345	11	49,488	35,275	138,526	S 126,767	..	57,623
CENTRAL CIRCLE.										
Bellary	.. .. ..	.. .. ..	G 6,719	.. .. ..	3,359	13,503 Fodder, grass, etc. Panchayat fees.	58,191	S 143,940	.. .. ..	29,469 2,294 6,250
Anantapur ..	.. ..	.. ..	.. ..	.. ..	.. ..	4,097 (p) 115 Fodder grass. Panchayat fees.	68,248 3,982	S 163,265 S 8,533	.. .. ..	30,434 1,352 776
Guntūr	(k) 4,264 .. (l) 4,594	57,213 .. 13,613	G 21,133 S 68,388 S 69,221	.. ..	85,518 14,353	.. Fodder grass. ..	.. ..	.. ..	.. .. ..	.. 4,716 ..
Cuddapah, West.	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	1,474 Penning fees, etc. Panchayat fees.	39,639	S 92,653	.. .. ..	16,671 46 1,026
Do. East..	(m)	707 ..	S 940 ..	.. ..	441 ..	3,987 Penning fees.	41,498	S 76,586	.. ..	16,456 61
Nellore	(n)	9,762 ..	S 17,425 ..	.. ..	4,619 ..	2,077 Kancha rent.	..	..	.. ..	779 69,404
Chingleput ..	.. ..	.. ..	G 505	.. ..	126	2,130 Panchayat fees. Kancha rent. Penning fees.	28,527	S 39,100	.. ..	9,813 349 207 2
Chittoor ..	(o) 20	640	S 969	.. .. ..	437	2,434 Penning fees. Panchayat fees.	81,449	S 62,152	.. .. ..	22,011 2 813
Total ..	8,878	81,935	G 28,357 S 156,943	..	1,08,853	29,817	321,534	S 586,229	..	2,12,931

Districts.	Number of animals. At privileged rates. Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Fees received. Actual.	Value at full rates.	Grazing free. Number of animals. By right under settlement. Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	During pleasure of Government or otherwise than under settlement. Buffaloes.	Cows and bullocks.	Goats and sheep.	Other animals.	Value of fees at full rates.	Total value of fees at full rates.	Grand total of value at full rates.
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
NORTHERN CIRCLE.					RS.	RS.					RS.					RS.	RS.	RS.
Ganjām	..	..	..	..	..	..	..	..	..	..	..	341	1,270	S 54	..	371	371	9,343
Vizagapatam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5,360
Gōdāvari, Upper	(d) 5,145	(d) 27,516	(d) S 9,698	..	2,666	7,998	..	..	..	..	..	4,556	49,772	S 388	..	11,077	11,077	19,075
Do. Lower	(e) 1,356 (h) 504	(e) 11,810 (h) 15,625	..	..	2,824	7,791	..	..	..	..	..	752	7,114	..	..	2,154	2,154	14,687
Kistna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13,244
Kurnool, East	..	..	..	..	..	..	157	235	G 762 S 1,140	..	281	..	..	..	..	..	..	33,022
Do. South	..	..	..	..	..	..	2	26	S 66	..	12	..	..	..	..	..	..	9,355
Do. West	..	..	..	..	..	..	..	.. 1,491	.. S 3,303	..	589	..	..	..	..	..	..	23,722
Total	7,005	54,951	S 9,698	..	5,490	15,789	159	1,752	G 762 S 4,509	..	882	5,649	58,156	S 442	..	13,602	13,602	1,27,808
Unreserved lands.																		
Gōdāvari, Upper	(e) 5,808	(e) 38,143	(e) S 770	..	6,268	9,402	..	..	..	..	..	..	..	..	..	..	..	11,059
Do. Lower	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7,500
Kistna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	419
Total	5,808	38,143	S 770	..	6,268	9,402	..	..	..	..	..	..	..	..	..	..	..	18,978
Grand total	12,813	93,094	S 10,468	..	11,758	25,191	159	1,752	G 762 S 4,509	..	882	5,649	58,156	S 442	..	13,602	13,602	1,46,786
CENTRAL CIRCLE.																		
Bellary	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	41,372
Anantapur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	82,562
Guntūr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,04,587
Cuddapah, West	(g) ..	159	S. 200	..	24	48	..	..	..	..	..	..	..	..	..	..	..	17,791
Do. East	(r) .. (s) ..	151 277	..	..	35	80	..	738 ..	..	..	138	..	..	..	..	..	..	17,176
Nellore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	74,802
Chingleput	..	..	..	..	..	..	..	..	..	..	..	..	81	..	..	15	15	10,512
Chittoor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	23,263
Total	..	587	S 200	..	59	128	..	738	..	..	138	..	81	..	..	15	15	3,22,065

G = Goats. S = Sheep.

(a) The full rates are 6 annas per buffalo, 3 annas per cow or bullock and 1 anna 6 pies per sheep.
(b) Enhanced rates are 8 annas per buffalo, 4 annas per cow or bull and 2 annas per sheep.
(c) Enhanced rates in Gōdāvari Upper are 8 annas per buffalo and 5 annas per cow or bullock.
(d) Privileged rates in Bhadrāchalam taluk are 2 annas per buffalo, 1 anna per cow or bullock and 6 pies per sheep.
(e) Privileged rates are 4 annas per buffalo, 2 annas per cow or bull and 1 anna per sheep.
(f) The enhanced rates are 12 annas per buffalo, 6 annas per cow or bullock and 3 annas per sheep.
(g) The full rates are 8 annas per buffalo and 4 annas per cow or bull.
(h) Privileged rates are 1 anna per buffalo and 1 anna per bullock or cow.
(i) At Re. 1 per plough bull.
(j) Rate for penta cattle, Re. 1 per cow or buffalo or other animal and annas 8 per sheep.
(t) Excludes 377 buffaloes belonging to Parlakimedi Maliahs.
(u) Do. 1826 cows do.
(v) Do. Rs. 484 fees received in Parlakimedi Maliahs.

(1) The enhanced or special rates are—
Goats—Bellary, As. 8 ; Chingleput, As. 4
Guntūr .. (k) Rs. 1–8 per buffalo, As. 12 per cow, As. 8 per goat and As. 6 per sheep.
(l) As. 8 per buffalo, As. 4 per cow, and As. 2 per sheep.
Cuddapah, East .. (m) As. 6 per cow and As. 3 per sheep.
Nellore .. (n) As. 4 per cow and As. 2 per sheep.
Chittoor .. (o) As. 12 per buffalo, As. 6 per cow and As. 3 per sheep.
(2) The full rates are As. 6 per buffalo, As. 3 per cow and As. 1–6 per sheep.
(p) Half the full rates for half-year in Anantapur.
(3) The privileged rates are—
Cuddapah, West .. (q) As. 1–6 per cow and 9 pies per sheep.
Do. East .. (r) Anna 1 per cow.
(s) As. 1–6 per cow

Forest Department, Madras Presidency.

Return of grazing in the State forests during 1915–16—*cont.*

District.	Grazing on payment. At enhanced or special rates. Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees received.	At full rates. Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees received.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
SOUTHERN CIRCLE.					RS.					RS.
Nellore, North	..	..	..	..	..	1,483	58,608	69,679	..	18,077 (a) 1,641
Do. South	..	20,243	..	..	5,061	1,774	77,914	35,702	..	18,621 (c) 63 (j) 10
South Arcot *cum* Tanjore.	..	112	(i) 868	..	140	3,824	58,853	86,548	..	20,583 (a) 110 (k) 393
Salem, North	1,717	86,182	32,158	..	26,424	180	23,367	12,990	..	5,667 (b) 3 (c) 420
Do. South	..	..	..	..	..	822	86,083	32,449	..	19,491 (c) 1 (d) 532
Trichinopoly	..	..	..	..	..	1,546	43,171	164,273	..	24,075 (e) 1
Madura	466	59,256	44,131	347	20,650	..	..	..	..	..
Tinnevelly	.	(f) 467	..	..	167	808	16,510	18,175	..	5,103 (g) 237
Total ..	2,183	166,260	77,157	347	52,442	10,437	364,506	419,816	..	1,15,028
WESTERN CIRCLE.										
Reserved Forests.										
Mangalore, North ..	..	..	..	..	..	2,077	17,921	..	..	4,139
Do. South ..	..	..	..	..	.	3,391	20,118	..	..	5,044
Malabar, North	..	..	..	..	..	3,517	7,368	..	..	2,700
Do. South	..	..	..	..	..	..	..	..	..	(t) ..
The Nilgiris	..	(l) 1,085	..	..	543	11,680	21,988 (n) 70	S 2,024	.	8,699 (m) 179
Kollegal *	3,044	67,842	S 5,749	..	19,201	..	..	..	..	..
Coimbatore, North * ..	6,281	75,216	S 28,685	..	25,530 (m) 412	..	..	..	..	..
Do. Central ..	..	..	..	..	..	239	22,378	S 13,532	..	5,554 (m) 1,008 (e) 1,074
Do. South ..	..	..	..	..	..	300	9,671	S 161	(p) 2	1,961 (m) 86 (o) 166
Total ..	9,325	144,143	S 34,434	..	45,686	21,204	99,514	S 15,717	2	30,610
Reserved Lands.										
The Nilgiris	..	(l) 232	..		116	907	1,098	..	..	546
otal, Western Circle ..	..	..	..	..	..	..	..	..	..	..
Grand Total, Presidency..	32,673	470,604	S 336,879 G 28,357	358	2,56,585	97,640	925,178	S 1,148,529	2	4,16,738

District.	Number of animals. At privileged rates. Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Fees received. Actual.	Value at full rates.	Grazing free. Number of animals. By right under settlement. Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Value of fees at full rates.	During pleasure of Government or otherwise than under settlement. Buffaloes.	Cows and bullocks.	Sheep.	Other animals.	Value of fees at full rates.	Total value of fees at full rates.	Grand total of value at full rates.
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
SOUTHERN CIRCLE.					RS.	RS.										RS.	RS.	RS.
Nellore, North	47	726	..	..	77	154	..	..	..	..	..	..	..	..	..	(h) 5,028	5,028	24,900
Do. South	2,626	14,978	506	..	1,920	3,840	..	..	..	..	..	30	3,268	333	..	655	655	28,250
South Arcot *cum* Tanjore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	(h) 11	11	21,237
Salem, North	..	..	..	..	..	..	..	..	..	..	..	..	150	..	..	28	28	32,542
Do. South	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20,024
Trichinopoly	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	24,076
Madura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20,650
Tinnevelly	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5,507
Total	2,673	15,704	506	..	1,997	3,994	..	..	..	..	..	30	3,418	333	..	5,722	5,722	1,77,186
WESTERN CIRCLE. *Reserved Forests.*																		
Mangalore, North	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,139
Do. South	..	..	..	18,353	2,294	(r) 2,294	..	..	..	..	..	..	..	..	..	..	..	7,338
Malabar, North	..	..	..	..	..	..	..	..	.	..	..	..	..	..	(s) 1	91	91	2,791
Do. South	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	(t) ..
The Nilgiris	..	..	S 17,988 (q)	..	68	1,686	..	..	..	..	..	2,069	18	..	..	779	779	11,886
Kollegal *	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	19,201
Coimbatore, North *	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	25,942
Do. Central	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	7,636
Do. South	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2,213
Total	..	..	S 17,988	18,353	2,362	3,980	..	..	..	..	..	2,069	18	..	1	870	870	81,146
Reserved Lands. The Nilgiris	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	662
Total, Western Circle	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Grand Total, Presidency	15,486	1,09,385	29,162	18,353	16,176	33,293	159	2,490	S 4,509 G 762	..	1,020	7,748	61,673	775	1	20,209	20,209	7,27,845

Note for S.C.—The enhanced or special rates are : buffaloes 8 annas, cows, bullock or other animals 4 annas and sheep 2 annas.
The full rates are 6 annas per buffalo, 3 annas per cow, bullock or other animal and 1½ annas per sheep.
The privileged rates are half the full rates.

(a) Collection from panchayatdars.
(b) Sale-proceeds of fodder grass.
(c) Penning license fee.
(d) Grazing assessment for the Malayali cattle on the Chitteries as per B.P. Forest No. 142, dated 6th October 1915.
(e) Renewal fees.
(f) 406 cows at 6 annas each and 61 cows at 4 annas each.
(g) Lease amount for grazing in Kavalkuttiparambu reserved forest.
(h) Free removal of grass.
(i) 105 sheep at 2½ annas each and 763 sheep at 2 annas each.
(j) Added to tally with Accountant-General's audited figure.
(k) Lease amount of grazing in certain reserves.

S = Sheep. G = Goats.

Note for W.C.—The full rates are As. 6 per buffalo, As. 3 per cow, bullock or other animals and As. 1–6 per sheep.
* Annas 8 per buffalo, As. 4 per cow, bullock or other animals and As. 2 per sheep.

(l) Annas 8 per cow or bullock.
(m) Sale-proceeds of fodder grass.
(n) Calves, half rate.
(o) Revenue from reserves handed over to Panchayat.
(p) Elephants at Rs. 10 each.
(q) Annas 3 per 100 per diem.
(r) Buffaloes, cows, etc., brought for a cattle fair charged without distinction at a uniform rate of As. 2 per head.
(s) Elephant.
(t) Excludes Rs. 2 wrongly debited to II (d) instead of II (e).

ABSTRACT of animals licensed to graze on payment.

Circle.	Buffaloes.	Bullocks and cows.	Sheep.	Goats.	Other animals.	Total.
Northern Circle	60,375	309,654	205,580	..	11	575,620
Central Circle	38,695	404,056	743,372	28,357	..	1,214,480
Southern Circle	15,293	546,170	497,479	..	347	1,059,589
Western Circle	31,436	244,987	68,139	.	18,355	362,917
Grand Total, Presidency ..	145,799	1,505,167	1,514,570	28,357	18,713	3,212,606

ANNUAL FORM No. 75.

Forest Department, Madras Presidency.

AREA under artificial reproduction, 1915–16.

District.	Area in acres.				Expenditure during the year.		Total expenditure from commencement.		Revenue during the year.	Total revenue from date of creation of plantation.
	On 1st July 1915.	Added during the year.	Excluded during the year.	Area on 30th June 1916.	Creation.	Upkeep.	Creation.	Upkeep.		
NORTHERN CIRCLE.										
A.—Regular Plantations.										
	ACS.	ACS.	ACS.	ACS.	RS.	RS.	RS.	RS.	RS.	RS.
* Ganjām ..	(a) 412	..	† 412	(a) ..	..	(b) ..	(c) 28,199	(d) 12,918	..	23,216
Vizagapatam ..	51	..	..	51	..	..	..	5	200	3,085
Gōdāvari, Lower ..	418	..	† 76	342	..	247	‡ 31,150	‡ 15,300	5,654	‡ 52,759
Kistna	313	..	† 225	88	..	100	‡ 5,983	‡ 21,160	..	‡ 24,321
Kurnool, East ..	130	..	..	130	..	415	38,471	25,953	..	..
Do. West ..	1,378	102	..	1,480	15,540	4,704	2,88,366	54,750	3,294	15,951
Total ..	2,702	102	† 713	2,091	15,540	5,466	3,92,169	1,30,086	9,148	1,19,332
B.—Cultural Operations.										
* Ganjām ..	419	..	† 419	..	..	..	2,268	633	..	..
Vizagapatam ..	44	..	† 5	39	..	..	‡ 233	‡ 3	..	..
Gōdāvari, Upper ..	829	..	..	829	..	..	2,225	830	..	145
Do. Lower ..	2,402	..	..	2,402	..	..	2,359	1,032	..	..
Kistna	3,603	24	† 2,424	1,203	..	..	‡ 7,624	‡ 3,208	9,002	‡ 50,826
Kurnool, East ..	33	..	..	33	548	..	‡ 10,333	3,561	..	..
Do. South ..	319	..	† 132	187	..	619	‡ 4,069	1,536	..	..
Do. West ..	2,438	1,020	..	3,458	477	885	21,751	1,003	..	..
Total ..	10,087	1,044	† 2,980	8,151	1,025	1,504	50,862	11,806	9,002	50,971
CENTRAL CIRCLE.										
A.—Regular Plantations.										
Central Circle.										
Bellary	579	..	..	579	..	40	9,423	62,495	96	110
Anantapur	..	..	..	..	..	..	..	..	..	..
Guntūr	2,822	..	181	2,641	..	298	48,286	32,344	9,361	37,847
Cuddapah, West ..	10	..	..	10	..	..	560	..	..	..
Do. East ..	146	..	..	146	23	168	23	351	631	2,726
Nellore	3,960	..	..	3,960	..	1,107	1,56,705	16,515	68,918	6,35,692
Chingleput	334	..	334	..	..	8	6,881	5,220	..	11,207
Chittoor	60	..	..	60	..	626	..	..	19	..
Total ..	7,911	..	515	7,396	23	2,247	2,21,878	1,16,925	79,025	6,87,582
B.—Taungya Plantations—Nil.										
C.—Cultural Operations.										
Bellary	20,690	..	13,900	6,790	..	..	27,981	3,006	..	..
Anantapur	196	164	..	360	128	19	399	19	..	..
Guntūr	..	..	..	..	..	..	..	..	..	..
Cuddapah, West ..	1,713	..	1,713	..	..	..	..	..	..	..
Do. East ..	..	..	..	..	..	..	..	..	..	..
Nellore	116	..	..	116	..	129	..	..	..	..
Chingleput	..	..	..	..	..	..	..	..	..	..
Chittoor	267	59	18	308	97	74	..	..	..	..
Total ..	22,982	223	15,631	7,574	225	222	28,380	3,025	..	..
Grand Total ..	30,893	223	16,146	14,970	248	2,469	2,50,258	1,19,950	79,025	6,87,582

* These will be omitted from future statements.
† Due to revision made with reference to B.P. Forest No. 49, dated 1st April 1916.
‡ Revised figures furnished by District Forest officers.

(a) Excludes 6½ acres of Regular plantation belonging to Parlakimedi Maliahs.
(b) Excludes Rs. 110 spent in Parlakimedi Maliahs.
(c) Do. Rs. 17 do.
(d) Do. Rs. 327 do.

Area under artificial reproduction, 1915-16—*cont.*

District.	Area in acres. On 1st July 1915	Added during the year.	Excluded during the year.	Area on 30th June 1916.	Expenditure during the year. Creation.	Expenditure during the year. Upkeep.	Total expenditure from commencement. Creation.	Total expenditure from commencement. Upkeep.	Revenue during the year.	Total revenue from date of creation of plantation.
SOUTHERN CIRCLE.										
A.—Regular Plantations.										
	ACS.	ACS.	ACS.	ACS.	RS.	RS.	RS.	RS.	RS.	RS.
North Vellore ..	1,831·48	..	..	1,831·48	284	698	19,881	1,33,541	2,164	82,949
Trichinopoly ..	146	..	(a) 146	..	..	..	..	.	..	..
Madura	1 281·60	50	3	1,328·60	592	34	60,763	6,977	156	4,620
Tinnevelly ..	5,322	..	..	5,322	..	10	6,368	1,756	..	..
Total ..	8,581·08	50	149	8,482·08	876	742	87,012	1,42,274	2,320	87,569
B.—Taungya Plantations.										
Tinnevelly ..	23	..	..	23	6	..	11	13	..	..
Total ..	23	..	..	23	6	..	11	13	..	..
C.—Cultural Operations.										
North Vellore ..	840	..	..	840	3	..	66	98	1	579
South do ..	821·22	10	..	831·22	43	..	309	..	..	..
South Arcot ..	6,293	529	..	6,822	..	..	496	2,779	..	..
North Salem ..	143	..	..	143		..	8,928	..	..	..
South do. ..	1,013	..	..	1,013	..	..	1,245	100	..	.
Tinnevelly ..	3,904	95	..	3,999	116	434	5,466	6,202	..	..
Total ..	13,014·22	634	..	13,648·22	162	434	16,510	9,179	1	579
WESTERN CIRCLE.										
A.—Regular Plantations.										
Mangalore, South ..	52	..	..	52	..	..	32	1,367	..	516
Malabar, North ..	873	..	..	873	..	463	15,272	19,195	..	1,939
Do. South ..	6,474	..	..	6,474	178	5,304	5,38,120	5,39,983	1,32,253	20,11,084
The Nilgiris ..	1,743	..	..	1,743	..	1,227	6,462	3,11,229	38,410	6,12,733
Total ..	9,142	..	..	9,142	178	6,994	5,59,886	8,71,774	1,70,663	26,26,272
B.—Taungya Plantations.										
Malabar, North ..	762	20	..	782	..	100	..	10,828	555	5,533
The Nilgiris ..	19	..	..	19	..	135	367	3,364	..	..
Total ..	781	20	..	801	..	235	367	14,192	555	5,533
C.—Cultural Operations.										
Malabar, North ..	4,342	277	..	4,619	455	40	2,491	7,438	..	..
Kollegal	6,980	70	..	7,050	9	..	455	149	..	..
Coimbatore, North ..	59	115	32	142	65	..	191	..	..	..
Do. Central ..	1,590	..	..	1,590	..	..	1,882	143	..	..
Do. South ..	1,187	13	..	1,200	409	56	2,770	1,379	..	..
Total ..	14,158	475	32	14,601	938	96	7,789	9,109	..	..
Grand total ..	24,081	495	32	24,544	1,116	7,325	5,68,042	8,95,075	1,71,218	26,31,805
Total A Regular Plantations.	28,336	152	1,377	27,111	16,617	15,449	12,60,945	12,61,059	2,61,156	35,20,755
B. Taungya ..	804	20	..	824	6	235	378	14,205	555	5,533
C. Cultural operations	60,241	2,376	18,643	43,974	2,350	2,266	1,03,541	33,119	9,003	51,550
Grand Total Presidency.	89,381	2,548	20,020	71,909	18,973	17,940	13,64,864	13,08,383	2,70,714	35,77,838

(a) One hundred and forty-five acres transferred to the Public Works Department and 1 acre to South Arcot.

Note.—The areas have been re-classified as per instructions in B.P. Forest No. 49, dated 1st April 1916, in all divisions except North Malabar for which division the last year's figures have been adopted as the District Forest Officer has not yet classified the areas.

FORM No. 76.

ANNUAL

Forest Department, Madras Presidency.

OUTTURN (in cubic feet solid) of Timber and Fuel during the year 1915–16, and Agency of Exploitation.

District.	Timber in the rough logs. Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Timber in the rough poles. Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Sawn or square timber. Government.	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
NORTHERN CIRCLE.															
I Reserved Forests.	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.
Ganjam	(j) 685	(k) 53,347	..	..	(l) 54,032	(m) 3,732	(n) 180	8,580	..	(o) 12,492	2,372	1,828	..	..	4,200
Vizagapatam	1,622	..	..	..	1,622	..	1,483	..	..	1,483	..	..	..	..	..
Gōdávari, Upper ..	1,637	..	..	..	1,637	54	..	..	..	54	..	..	..	..	..
Do. Lower ..	1,350	24,725	..	..	26,075	351	200	..	..	551	..	..	..	..	..
Kistna	..	..	..	..	..	..	13,622	..	..	13,622	..	..	..	..	..
Kurnool, East	3,711	10,457	..	..	14,168	3,069	197	..	..	3,266	429	754	..	..	1,183
Do. South.. ..	1,944	19,640	..	..	21,584	1,177	40,378	..	..	41,555	..	382	..	..	382
Do. West	32,29	451	..	..	32,74	51,604	453	3,728	787	56,572	729	628	..	..	1,357
Total, Reserved forests.	43,240	108,620	..	..	151,860	59,987	56,513	12,308	787	129,595	3,530	3,592	..	..	7,122
II. Leased Forests—Nil.															
III. Reserved Lands.															
Gōdávari, Upper ..	812	..	..	..	812	845	..	..	..	845	..	..	..	..	..
IV. Unreserved Lands.															
Ganjām	83	9,584	..	..	9,667	7,525	43,727	5,760	163,080	220,092	22,019	16,861	..	3,295	42,175
Vizagapatam	..	.	..	..		623	40,757	..	..	41,380	..	197	..	...	197
Gōdávari, Upper ..	16,175	1,220	191	..	17,586	12,436	3,896	471	..	16,803	..	..	..	..	..
Do. Lower ..	(a) 33,123	(b) 159,466	(g) 20,661	..	213,250	175	(c) 58	..	..	233	..	13,872	..	..	13,872
Kistna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kurnool, East.. ..	..	20,632	..	..	20,632	..	..	..	..	..	..	..	..	..	..
Do. South ..	.	680	..	..	680	..	7	..	..	7	..	..	..	..	..
Do. West ..	..	2,090	..	..	2,090	..	..	..	..	..	..	..	..	..	..
Total, Unreserved lands.	49,381	193,672	20,852	..	263,905	20,759	88,445	6,231	163,080	278,515	22,019	30,930	..	3,295	56,244
Grand total ..	93,433	(i) 302,292	20,852	..	(i) 416,577	81,591	(i) 144,958	18,539	163,867	(i) 408,95	25,549	34,522	..	3,295	63,366

District.	Miscellaneous. Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Total timber. Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Fuel. Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Total outturn.
(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
NORTHERN CIRCLE.																
I Reserved Forests.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.
Ganjam	60,040	1,500	..	..	61,540	(p) 66,829	(q) 56,855	8,580	..	(r) 132,264	(s) 16,770	(t) 298,287	..	427,359	(u) 742,416	(v) 874,680
Vizagapatam	..	..	..	..	..	1,622	1,483	..	..	3,105	(1) 68,960	48,211	..	..	117,171	120,276
Gōdávari, Upper	639	..	..	..	639	2,330	..	..	..	2,330	..	..	..	..	..	2,330
Do. Lower	..	..	..	..	..	1,701	24,925	..	..	26,626	11,585	(e) 1,788,982	..	..	1,800,567	1,827,193
Kistna	34	25,232	..	..	25,266	34	38,854	.	..	38,888	10,000	807,112	..	..	817,112	856,000
Kurnool, East	2,042	99	573	..	2,714	9,251	11,507	573	..	21,331	46,450	11,540	..	..	57,990	79,321
Do. South	175	1,605	69	36	1,885	3,296	62,005	69	36	65,406	300	211,309	..	330	211,939	277,345
Do. West	1,915	..	..	..	1,915	86,539	1,532	3,728	787	92,586	482,374	24,045	..	154,506	660,925	753,511
Total, Reserved forests.	64,845	28,436	642	36	93,959	171,602	197,161	12,950	823	382,536	636,439	3,189,486	..	582,195	4,408,120	4,790,656
II. Leased Forests—Nil.																
III. Reserved Lands.																
Gōdávari, Upper	80	..	..	..	80	1,737	..	..	..	1,737	..	..	..	..	..	1,737
IV. Unreserved Lands.																
Ganjām	..	181,695	..	..	181,695	29,627	251,867	5,760	166,375	453,629	7,650	205,367	..	..	213,017	666,646
Vizagapatam	..	..	200	..	200	623	40,954	200	..	41,777	..	50,697	..	..	50,697	92,474
Gōdávari, Upper	5,709	26,348	..	..	32,057	34,320	31,464	662	..	66,446	2,808	75,815	..	..	78,623	145,069
Do. Lower	..	90,148	..	..	90,148	33,298	263,544	20,661	..	317,503	1,463	(d) 191,628	(a) 3,462	..	196,553	*514,056
Kistna	240	50,656	7,008	..	57,904	240	50,656	7,008	..	57,904	390	50,192	..	..	50,582	108,486
Kurnool, East	..	38	..	..	38	..	20,670	..	..	20,670	.	4,520	..	..	4,520	25,190
Do. South	..	47,276	279	..	47,555	..	47,963	279	..	48,242	..	98,973	..	..	98,973	147,215
Do. West	..	..	..	..	..	..	2,090	..	..	2,090	..	207,720	..	..	207,720	209,810
Total, Unreserved lands.	5,949	396,161	7,487	..	409,597	98,108	709,208	34,570	166,375	1,008,261	12,311	884,912	3,462	..	900,685	1,908,946
Grand total	70,874	424,597	8,129	36	503,636	271,447	906,369	47,520	167,198	1,392,534	648,750	4,074,398	3,462	582,195	5,308,805	6,701,339

* Corrected in the Board's office.

(p) Excludes 632 cubic feet of timber belonging to Parlākimedi Maliahs.
(q) Do. 2,490 do. do. do. do.
(r) Do. 3,122 do. do. do. do.
(s) Do. 19,720 do. fuel do. do.
(t) Do. 67,488 do. do. do. do.
(u) Do. 87,208 do. do. do. do.
(v) Do. 90,330 do. do. do. do.

REMARKS.

Vizagapatam.

(1) Includes 134 and 816 cubic feet.
Solid of this 1,676·11 cubic feet actuals.
432,206 cubic feet estimates.
44,882·11 One cart-load being equivalent to 20 head-loads or 20 cubic feet.

Gōdāvari, Lower.

(a) Includes 32,774 cubic feet on account of drift wood.
(b) Includes 3,745 cubic feet on account of confiscated timber.
(c) Represents confiscated produce.
(d) Includes 231 cubic feet of fuel confiscated.

		C. FT.
(e) Actuals	.. .. ..	1,625,731
Figures obtained by calculating averages	.. ..	163,251
Total	..	1,788,982

(g) Figures obtained by conversion at 1 anna per cubic foot out of 206,661 cubic feet. Eight hundred cubic feet relate to the free grant made during 1914–15 which was not included in the accounts for that year.
(h) Figures obtained by conversion at 3 pies per cubic foot.

Kistna.

Figures under unreserved lands are of approximate estimate.

Kurnool, East.

All the items of produce removed by Government Agency are actuals and those by contractor or purchasers are estimates which are taken from the contractors' statements.

Kurnool, South.

The figures shown against purchasers are taken from the contractors' accounts. Except the figures shown against Government all other figures are approximate in conversion into cubic feet.

(i) Corrected in the Board's office.

(j) Excludes 362 c.ft. of timber belonging to Parlakimedi Maliahs.
(k) Do. 860 do. do.
(l) Do. 1,222 do. do.
(m) Do. 270 do. do.
(n) Do. 1,630 do. do.
(o) Do. 1,900 do. do.

Outturn (in cubic feet solid) of Timber and Fuel during the year 1915-16, and Agency of Exploitation—*cont.*

District. (1)	Timber in the rough logs. Government. (2)	Purchasers. (3)	Free-grantees. (4)	Right-holders. (5)	Total. (6)	Timber in the rough poles. Government. (7)	Purchasers. (8)	Free-grantees. (9)	Right-holders. (10)	Total. (11)	Sawn or square timber. Government. (12)	Purchasers. (13)	Free-grantees. (14)	Right-holders. (15)	Total. (16)
CENTRAL CIRCLE.															
I. Reserved Forests.															
Bellary ..	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.	C. FT.			C. FT.
Anantapur ..	..	..	..	..	..	22	1,320	..	..	1,342	..	..	..	..	..
Guntūr ..	..	400	392	..	792	..	..	..	..	..	..	..	..	..	..
Cuddapah, West ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. East ..	..	..	..	..	..	256	6,486	..	..	6,742	..	..	..	..	..
Nellore ..	263	..	..	..	263	16,494	76,912	..	..	93,406	..	..	..	..	..
Chingleput ..	945	..	..	..	945	..	..	..	..	..	..	..	..	..	..
Chittoor ..	129	3,379	..	..	3,508	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	1,337	3,779	392	..	5,508	16,772	84,718	.	..	101,490	..	..	..	..	
II. Leased Forests.															
Bellary ..	9	..	..	..	(a) 9	..	..	5,100	..	5,100	..	..	..	..	..
III. Reserved Lands—Nil.															
IV. Unreserved Lands.															
Bellary ..	..	..	..	..	..	..	31,211	3,062	..	34,273	..	..	..	..	..
Anantapur ..	..	126,560	2,744	.	129,304	..	..	..	..	..	..	..	..	..	..
Guntūr ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cuddapah, West ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. East ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nellore ..	330	..	..	..	330	..	..	..	..	..	..	..	..	..	..
Chingleput ..	..	68,051	..	..	68,051	..	..	..	..	..	..	..	..	..	..
Chittoor ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	330	194,611	2,744	..	197,685	..	31,211	3,062	..	34,273	..	..	..	..	..
Grand total ..	1,676	198,390	3,136	..	203,202	16,772	115,929	8,162	..	140,863	..	..	..	..	..
SOUTHERN CIRCLE.															
I. Reserved Forests.															
Vellore, North ..	29	..	..	..	29	4	328	..	..	332	..	..	..	..	..
Do. South ..	452	..	..	..	452	29	..	..	..	29	..	..	..	..	..
Arcot, South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Salem, North ..	..	..	..	..	..	..	..	..	..	..	2,079	..	..	.	2,079
Do. South ..	545	21	..	..	566	216	66	..	..	282	1,047	229	..	..	1,276
Trichinopoly ..	32	617	.	.	649	..	..	..	..	..	126	3	..	..	129
Madura ..	2,672	151	275	..	3,098	..	..	..	..	..	..	..	..	..	..
Tinnevelly ..	1,490	17,731	..	..	19,221	215	16,338	..	..	16,553	1,245	15,933	..	..	17,178
Total of reserved forests.	5,220	18,520	275	..	24,015	464	16,732	..	..	17,196	4,497	16,165	..	..	20,662
II. Leased Forests—Nil.															
III. Reserved Lands.															
Arcot, South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Unreserved Lands.															
Vellore, North ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Arcot, South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Salem, North ..	..	..	..	..	..	..	..	..	..	..	1,841	..	..	..	1,841
Do. South ..	91	371	..	..	462	..	10,330	3,800	..	14,130	..	123	..	..	123
Trichinopoly ..	..	..	..	..	..	..	..	1,960	..	1,960	..	..	..	..	..
Madura ..	..	..	160	..	160	..	..	..	..	..	..	..	..	..	..
Tinnevelly ..	..	..	1,760	..	1,760	..	..	645	..	645	..	..	..	..	..
Total of unreserved lands.	91	371	1,920	..	2,382	..	10,330	6,405	..	16,735	1,841	123	..	..	1,964
Abstract.															
Vellore, North ..	29	..	..	..	29	4	328	..	..	332	..	..	..	..	..
Do. South ..	452	..	..	..	452	29	..	..	..	29	..	..	..	..	..
Arcot, South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Salem, North ..	..	..	..	..	..	..	..	..	..	..	3,920	..	..	..	3,920
Do. South ..	636	392	..	..	1,028	216	10,396	3,800	..	14,412	1,047	352	..	..	1,399
Trichinopoly ..	32	617	..	..	649	..	..	1,960	..	1,960	126	3	..	..	129
Madura ..	2,672	151	435	..	3,258	..	..	..	..	..	..	..	..	..	..
Tinnevelly ..	1,490	17,731	1,760	..	20,981	215	16,338	645	..	17,198	1,245	15,933	..	..	17,178
Total ..	5,311	18,891	2,195	..	26,397	464	27,062	6,405	..	33,931	6,338	16,288	..	..	22,626

District. (1)	Miscellaneous. Government. (17)	Purchasers. (18)	Free-grantees. (19)	Right-holders. (20)	Total. (21)	Total timber. Government. (22)	Purchasers. (23)	Free-grantees. (24)	Right-holders. (25)	Total. (26)	Fuel. Government. (27)	Purchasers. (28)	Free-grantees. (29)	Right-holders. (30)	Total. (31)	Total outturn. (32)
CENTRAL CIRCLE.																
I. Reserved Forests.																
Bellary ..	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.
Anantapur ..	..	..	..	..	..	22	1,320	..	..	1,342	4,560	158,555	..	..	163,115	164,457
Guntūr ..	..	..	..	..	.	..	400	392	..	792	..	8,910	..	..	8,910	9,702
Cuddapah, West ..	574	24,016	..	..	24,590	574	24,016		..	24,590	..	739,600	..	..	739,600	764,190
Do. East ..	..	48,640	508	..	49,148	256	55,126	508	..	55,890	2,400	498,520	..	..	500,920	556,810
Nellore ..	..	..	770	..	770	16,757	76,912	770	..	94,439	9,503	2,925,085	..	..	2,934,588	3,029,027
Chingleput ..	..	..	..	..	..	945	..		..	945	4,587	73,618	..	..	78,205	79,150
Chittoor ..	300	..		..	300	429	3,379	..	..	3,808	2,011	115,128	..	..	117,139	120,947
	427	26,020	216	..	26,663	427	26,020	216	..	26,663	800	509,464	..	..	510,264	536,927
Total ..	1,301	98,676	1,494	..	101,471	19,410	187,173	1,886	..	208,469	23,861	5,028,880	..	..	5,052,741	5,261,210
II. Leased Forests.																
Bellary ..	..	..	..	..	..	9	..	5,100	..	5,109	200	8,620	..	..	8,820	13,929
III. Reserved Lands—Nil.																
IV. Unreserved Lands.																
Bellary ..	..	..	..	..	..	..	31,211	3,062	..	34,273	..	131,413	..	..	131,413	165,686
Anantapur ..	..	..	..	..	..	..	126,560	2,744	..	129,304	..	233,665	..	..	233,665	362,969
Guntūr ..	..	244,704	17,929	..	262,633	..	244,704	17,929	..	262,633	..	159,456	..	..	159,456	422,089
Cuddapah, West ..	..	81,286	612	.	81,898		81,286	612	..	81,898	.	466,943	..	..	466,943	548,841
Do. East ..	..	11,059	..	..	11,059	..	11,059	..		11,059	..	73,742	..	..	73,742	84,801
Nellore ..	..	30,028	8,670	..	38,698	330	30,023	8,670	..	39,028	..	70,835	..	..	70,835	109,863
Chingleput ..	..		510	..	510	..	68,051	510	..	68,561	..	98,720	..	..	98,720	167,281
Chittoor ..	67	136,327	7,215	..	143,609	67	136,327	7,215	..	143,609	260	102,987	..	..	103,247	246,856
Total ..	67	503,404	34,936	..	538,407	397	729,226	40,742	..	770,365	260	1,337,761	..	..	1,338,021	2,108,386
Grand total ..	1,368	602,080	36,430	..	639,878	19,816	916,399	47,728	..	983,943	24,321	6,375,261		..	6,399,582	7,383,525
SOUTHERN CIRCLE.																
I. Reserved Forests.																
Vellore, North ..	32	..	..	..	32	65	328	..	..	393	10,618	607,635	..	..	618,253	618,646
Do. South ..	4,445	2,623	..	..	7,068	4,926	2,623	..	..	7,549	1,547	258,676	..	..	260,223	267,772
Arcot, South ..	..	3,120	..	..	3,120	..	3,120	..	..	3,120	2,987	329,972	200	..	333,159	336,279
Salem, North ..	..	494	480	..	974	2,079	494	480	..	3,053	2,700	155,234	..	..	157,934	160,987
Do. South ..	.	4	..	.	4	1,808	320	..	..	2,128	..	307,118	..	..	307,118	309,246
Trichinopoly ..	..	137	..	..	137	158	757	.	..	915	22,285	275,139	..	..	297,424	298,339
Madura ..	..	..	..	..	..	2,672	151	275	..	3,098	4,720	647,346	..	..	652,066	655,164
Tinnevelly ..	691	23,985	..	..	24,676	3,641	73,987	..	..	77,628	25,575	960,155	..	..	985,730	1,063,358
Total of reserved forests.	5,168	30,363	480	..	36,011	15,349	81,780	755	..	97,884	70,432	3,541,275	200	..	3,611,907	3,709,791
II. Leased Forests—Nil.																
III. Reserved Lands.																
Arcot, South ..	..	..	..	..	..	..	..	..	..	..	..	36,958	..	..	36,958	36,958
IV. Unreserved Lands.																
Vellore, North ..	..	68,635	2,221	..	70,856	..	68,635	2,221	..	70,856	..	62,828	..	..	62,828	133,684
Do. South ..	..	56,666	3,880	..	60,546	..	56,666	3,880	..	60,546	..	45,512	..	..	45,512	106,058
Arcot, South ..	..	31,181	2,578	..	33,759	..	31,181	2,578	..	33,759	..	153,072	233	..	153,305	187,064
Salem, North ..	..	170,905	..	..	170,905	1,841	170,905	..	..	172,746	..	100,335	..	..	100,335	273,081
Do. South ..	..	145,181		..	145,181	91	156,005	3,800	.	159,896	..	63,672	..	..	63,672	223,568
Trichinopoly ..	..	141,755	335	..	142,090	..	141,755	2,295	.	144,050	..	33,055	..	..	33,055	177,105
Madura ..	..	89,941	730	..	90,671	..	89,941	890	..	90,831	..	88,221	..	..	88,221	179,052
Tinnevelly ..	..	1,470	..	..	1,470	..	1,470	2,405	..	3,875	..	114,185	2,446	..	116,631	120,506
Total of unreserved lands.	..	705,734	9,744	..	715,478	1,932	716,558	18,069	..	736,559	..	660,880	2,679	..	663,559	1,400,118
Abstract.																
Vellore, North ..	32	68,635	2,221	..	70,888	65	68,963	2,221	..	71,249	10,618	670,463	..	..	681,081	752,330
Do. South ..	4,445	59,289	3,880	..	67,614	4,926	59,289	3,880	..	68,095	1,547	304,188	..	..	305,735	373,830
Arcot, South ..	..	34,301	2,578	..	36,879	..	34,301	2,578	..	36,879	2,987	520,002	433	..	523,422	560,301
Salem, North ..	..	171,399	480	..	171,879	3,920	171,399	480	..	175,799	2,700	255,569	..	..	258,269	434,068
Do. South ..	..	145,185	..	..	145,185	1,899	156,325	3,800	..	162,024	..	370,790	..	..	370,790	532,814
Trichinopoly ..	..	141,892	335	..	142,227	158	142,512	2,295	..	144,965	22,285	308,194	..	..	330,479	475,444
Madura ..	..	89,941	730	..	90,671	2,672	90,092	1,165	..	93,929	4,720	735,567	..	..	740,287	834,216
Tinnevelly ..	691	25,455	..	..	26,146	3,641	75,457	2,405	..	81,503	25,575	1,074,340	2,446	..	1,102,361	1,183,864
Total ..	5,168	736,097	10,224	..	751,489	17,281	798,338	18,824	..	834,443	70,432	4,239,113	2,879	..	4,312,424	5,146,867

CENTRAL CIRCLE REMARKS.

(a) Sandalwood (*Santalum album*).

Reserved forests, Leased forest and unreserved lands—Timber and fuel—Government agency and Free grantees.—Actuals.

Timber and fuel—Purchasers.— Estimates based on accounts furnished by purchasers in reserved forests and on money value realized in unreserved lands.

SOUTHERN CIRCLE REMARKS.

Timber and fuel—Government agency and free grantees.—Actuals.

Reserved forest—Purchasers—Timber.—Estimates based on the amounts realized.

Reserved forests and reserved lands—Purchasers—Fuel.—Estimates based chiefly on the accounts furnished by coupe contractors.

Unreserved lands—Timber and fuel—Purchasers.—Estimates based on the money value realized.

Outturn (in cubic feet solid) of Timber and Fuel during the year 1915-16, and Agency of Exploitation—*cont.*

District.	Timber in the rough logs.					Timber in the rough poles.					Sawn or square timber.				
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
WESTERN CIRCLE. I. *Reserved Forests.*															
	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.			C. FT.
Mangalore, North ..	2,095	176	..	..	2,271	..	..	..	..	..	2,472	..	..	..	2,472
Do. South ..	3,909	8,612	..	..	12,521		..	..	..	..	52	..	..	..	52
Malabar, North ..	3,990	531	..	..	4,521	770	..	63	..	833	112,005	6,182	..	..	118,187
Do. South ..	7,437	16,275	..	..	23,712	11,861	..	..	..	11,861	..	..	..	..	..
The Nilgiris ..	675	1,958	..	..	2,633	28	..	..	..	28	..	..	..	..	..
Kollegal	..	..	..	..	..	6	..	..	..	6	1,367	..	..	..	1,367
Coimbatore, North ..	1,642	..	..	..	1,642	..	..	..	..	..	3,533	5	..	..	3,538
Do. Central ..	2,090	17,675	19	..	19,784	..	4,719	..	..	4,719	..	..	..	..	..
Do. South ..	..	..	..	..	..	..	400	..	..	400	4,886	5,534	..	..	10,420
Total ..	21,838	45,227	19	..	67,084	12,665	5,119	63	..	17,847	124,315	11,721	..	..	136,036
II. *Leased Forests.*															
Malabar, South ..	70,509	1,289	..	..	71,798	15,885	..	..	..	15,885	..	..	..	..	..
The Nilgiris ..	43,514	..	..	..	43,514	3,225	..	..	..	3,225	..	..	..	..	..
Coimbatore, South ..	..	..	..	..	..	..	..	..	..	..	9,937	..	..	..	9,937
Total ..	114,023	1,289	..	..	115,312	19,110	..	..	..	19,110	9,937	..	..	..	9,937
III. *Reserved Lands.*															
The Nilgiris ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. *Unreserved Lands.*															
Mangalore, North ..	..	95,344	2,425	11,600	109,369	..	..	..	..	..	..	..	..	..	..
Do. South ..	..	95,422	69	3,850	99,341	..	..	..	..	..	..	..	..	..	..
Malabar, South ..	93	5,163	..	..	5,256	1	..	..	..	1	..	..	..	..	..
The Nilgiris ..	183	7,093	..	..	7,276	..	..	..	..	..	..	..	..	..	..
Kollegal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coimbatore, North ..	..	26,111	..	..	26,111	..	..	..	..	..	..	..	..	..	..
Do. Central ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	276	229,133	2,494	15,450	247,353	1	..	..	.	1	..	..	..	..	..
Grand total, W.C.	136,137	275,649	2,513	15,450	429,749	31,776	5,119	63	..	36,958	134,252	11,721	..	..	145,973
Total, Presidency ..	236,557	795,222	28,696	15,450	1,075,925	130,603	293,068	33,169	163,867	620,707	166,139	62,531	..	3,295	231,965

District.	Miscellaneous.					Total timber.					Fuel.					Total outturn.
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	
(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
WESTERN CIRCLE. I. *Reserved Forests.*																
	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.	C. FT.		C. FT.	C. FT.
Mangalore, North ..	..	..	..	..	..	4,567	176	..	..	4,743	13,129	270,223	..	..	283,352	288,095
Do. South ..	..	..	..	..	..	3,961	8,612	..	..	12,573	32,616	77,097	..	..	109,713	122,286
Malabar, North ..	.	..	..	..	..	116,765	6,713	63	..	123,541	..	..	..	..	..	123,541
Do. South ..		..	..	..	..	19,298	16,275	..	.	35,573	552	112	..	..	664	36,237
The Nilgiris ..	173	..	20	..	193	876	1,958	20	..	2,854	445,508	28,159	..	..	473,667	476,521
Kollegal	3,174	..	..	..	3,174	4,547	..	..	..	4,547	107,500	..	..	..	107,500	112,047
Coimbatore, North ..	2,294	1,033	880	..	4,207	7,469	1,038	880	..	9,387	..	556,585	..	..	556,585	565,972
Do. Central ..	..	14,303	..	..	14,303	2,090	36,697	19	..	38,806	16,925	972,996	..	..	989,921	1,028,727
Do. South ..	142	3,828	440	..	4,410	5,028	9,762	440	..	15,230	..	405,219	..	..	405,219	420,449
Total ..	5,783	19,164	1,340	..	26,287	164,601	81,231	1,422	..	247,254	616,230	2,310,391	..	..	2,926,621	3,173,875
II. *Leased Forests.*																
Malabar, South ..	108	..	..	..	108	86,502	1,289	..	..	87,791	5,338	2	..	..	5,340	93,131
The Nilgiris ..	..	..	..	..	..	46,739	..	..	..	46,739	..	100	..	..	100	46,839
Coimbatore, South ..	651	..	..	.	651	10,588	..	..	..	10,588	..	..	..	..	..	10,588
Total ..	759	..	..	..	759	143,829	1,289	..	..	145,118	5,338	102	..	..	5,440	150,558
III. *Reserved Lands.*																
The Nilgiris ..	..	..	6	..	6	..	..	6	..	6	..	..	..	..	..	6
IV. *Unreserved Lands.*																
Mangalore, North ..	..	..	..	..	..	..	95,344	2,425	11,600	109,369	..	595,365	..	..	595,365	704,734
Do. South ..	..	..	..	..	..	..	95,422	69	3,850	99,341	..	175,503	..	..	175,503	274,844
Malabar, South ..	..	..	..	..	..	94	5,163	..	..	5,257	40	161	..	..	201	5,458
The Nilgiris ..	100	..	..	..	100	283	7,093	..	..	7,376	..	3,340	..	..	3,340	10,716
Kollegal	..	6,434	63	..	6,497	..	6,434	63	..	6,497	..	13,316	580	..	13,896	20,393
Coimbatore, North ..	..	..	..	..	..	..	26,111	..	.	26,111	..	22,722	..	..	22,722	48,833
Do. Central ..	..	61,056	320	..	61,376	..	61,056	320	..	61,376	..	97,987	..	..	97,987	159,363
Do. South ..	..	..	80	..	80	..	..	80	..	80	..	..	..	..	..	80
Total ..	100	67,490	463	..	68,053	377	296,623	2,957	15,450	315,407	40	908,394	580	..	909,014	1,224,421
Grand total, W.C.	6,642	86,654	1,809	..	95,105	308,307	379,143	4,385	15,450	707,785	621,608	3,218,887	580	..	3,841,075	4,548,860
Total, Presidency ..	84,052	1,849,428	56,592	36	1,990,108	617,351	3,000,249	118,457	182,648	3,918,705	1,365,111	17,907,659	6,921	582,195	19,861,886	23,780,591

REMARKS.—The figures are actuals except in the following cases:—

	Factors of conversion.
Mangalore, North and South. Outturn under all agencies except "Government."	One tree = 25 cubic feet.
South Malabar.	
Reserved forests (column 2), 7,063 cubic feet .. .. Leased forests (column 2), 62,389 do. .. .. Do. (column 7), 14,327 do.	One log of above 4 candies = 52 cubic feet. Do. from 2 to 4 candies = 26 do.. Do. under 2 candies = 20 cubic feet. One short log = 4 cubic feet. Measurable =6 cubic feet.
Reserved forests (column 7), 11,518 do.	Calculated as per standard measurements for the smalle class of saplings.
Reserved forests (column 28), 112 do.	One cart-load = 20 cubic feet. One cocoanut tree = 1 cubic foot.
Do. (column 3), 16,275 do.	465 logs at 35 cubic feet per log.
Leased forests (column 17), 108 do.	One log = 6 cubic feet.
Do. (column 28), 2 do.	One cubic foot per log.
Unreserved lands (column 7), 1 cubic foot	Half cubic foot for each pole.
The Nilgiris.	
Reserved forests (column 17), 173 cubic feet .. .. Unreserved lands (column 17), 100 do.	545 quarters of sandalwood at half a cubic foot per quarter.

Timber and firewood from unreserved lands are converted on sums realized at Rs. 1-8-0 per cart-load of 20 cubic feet.

Kollegal.	
Reserved forests (column 17), 3,174 cubic feet	6,348 quarters of sandalwood at half a cubic foot per quarter.
Do. (column 7), 6 do.	12 posts at half a cubic foot per post.
Central Coimbatore.	
Unreserved lands	The sale amount is converted into yield, the factor of conversion being 16 cubic feet per rupee.

ANNUAL FORM No. 77.

Forest Department, Madras Presidency.

OUTTURN of Minor Forest Produce during the year 1916–17.

Circle.	Description of produce.	Produce removed or utilised: By Government Agency. Quantity.	By Government Agency. Value.	By purchasers. Value.	By free-grants. Value.	By right-holders. Value.	Total. Value.
		NO.	RS.	RS.	RS.	RS.	RS.
Northern Circle	Bamboos	259,837	4,533	1,41,664	278	407	1,46,882
		MDS.					
	Grazing and fodder grass	..	..	1,19,005	..	798	1,19,803
	Grass (tharbi, korai, etc.).	16,099	190	698	30	..	918
	Tamarind, soapnuts, galnuts, nux-vomica, sheakoy, etc.	7,484	4,365	32,116	..	..	36,481
	Horns, honey, wax, resin, gum, skins, etc.	..	..	715	..	..	715
	Tangedu, etc., barks and fibres.	106	21	33,094	1	..	33,116
	Stone, gravel, earth, etc.	1,125	5	4,088	..	..	4,093
	Leaves for platters	..	..	679	..	..	679
	Date and palmyra leaves, stacks, etc.	100	14	4	31	..	49
	Manure leaves and thorns	..	..	843	..	..	843
	Miscellaneous, including tree-tapping and tree-owners' fees.	13,285	3,719	83,577	57	23,071	1,10,424
	Total, minor produce only	38,199	8,314	(a)2,74,819	119	23,869	3,07,121
		NO.					
Central Circle	Bamboos	1,773	13	17,301	167	..	17,481
	Grazing and fodder grass	..	..	3,21,843	..	138	3,21,981
		MDS.					
	Grass (thatch) and korai, etc.	3,231	143	1,348	29	..	1,520
	Tamarind, soapnuts and gallnuts.	4,323	7,172	51,452	..	..	58,624
	Horns, honey, wax, gum, etc.	..	..	6,150	..	..	6,150
	Tangedu, vembadam, etc.	232	373	2,53,904	..	..	2,54,277
	Mica, stone, gravel, etc.	..	..	36,650	22	..	36,672
	Manure leaves, thorns, etc.	60	23	5,650	..	..	5,673
	Date, palmyra leaves, etc.	..	..	2,945	262	..	3,207
	Miscellaneous including tree-tapping and tree-owners' fees.	304	776	82,819	..	..	83,595
	Total	8,150	8,487	4,40,918	313	..	4,49,718
	Grand Total	..	8,500	7,80,062	480	138	7,89,180
		NO.					
Southern Circle	Bamboos	4,848	289	1,10,692	454	..	1,11,435
		MDS.					
	Grazing and fodder grass	..	..	1,69,467	5,722	..	1,75,189
	Grass (thatch, korai, etc.)	1,258	10	7,031	5	61	7,107
	Dammer, cardamoms, etc.	1	13	6,282	..	..	6,295
	Tamarind, soapnuts, gallnuts, etc.	166	105	8,029	..	..	8,134
	Horns, honey, wax, gum, etc.	1	21	416	..	..	437
	Avaram, vembadam, etc., barks.	..	..	17,142	..	..	17,142
	Stones, gravel and earth	22,000	34	12,235	..	..	12,267
	Manure leaves, thorns, etc.	324	5	22,022	..	..	22,029
	Date, palmyra leaves, etc.	..	..	2,003	90	..	2,093
	Miscellaneous, including tree-tapping fees.	2,473	287	1,33,026	2	1,054	1,34,369
	Total	..	764	4,88,345	6,273	1,115	4,96,497
	Reserved forests.						
		NO.					
Western Circle	Bamboos in number	50,466	1,905	33,720	83	..	35,708
	Grazing and fodder grass	..	..	78,658	870	..	79,528
	Other produce.						
		QRS.					
	Grass (thatch, korai, etc.)	356	48	344	5	..	397
	Dammer, turmeric, pepper, cardamoms, etc.	14	53	1,674	..	..	1,727

(a) Excludes Rs. 9,455 realized from the minor forest produce contractors in the Parlākimedi Maliahs, Ganjām district.

Outturn of Minor Forest Produce during the year 1916–17—*cont.*

Circle.	Description of produce.	Produce removed or utilized: By Government Agency. Quantity.	By Government Agency. Value.	By purchasers. Value.	By free-grantees. Value.	By right-holders. Value.	Total. Value.
Western Circle—*cont.*	*Other produce—cont.*	QRS.	RS.	RS.	RS.	RS.	RS.
	Tamarind, soapnuts, gallnuts, nux-vomica, sheakoy, etc.	1,558	3,909	8,266	..	..	12,175
	Horns, honey, wax, gum, resin, skins, etc.	541	2,872	1,321	..	..	4,193
	Avaram, vembadam, etc., barks and fibres.	100	25	2,878	..	..	2,903
	Stones, gravel, earth, etc.	..	..	1,198	..	..	1,198
	Manure leaves, thorns, etc.	..	..	441	..		441
	Date and palmyra leaves		..	60	..	..	60
	Miscellaneous	529	911	12,826	..	..	13,737
		3,098	7,818	29,008	5	..	36,831
	Total	..	9,723	1,41,386	958	..	1,52,067
	Leased forests.						
	Bamboos in number	61,445	3,867	1,585	..	..	5,452
	Grazing and fodder grass	..	..	662	..	..	662
	Other produce.						
	Grass (thatch, korai, etc.)	..	..	27	..	..	27
	Tamarind, soapnuts, gallnuts, nux-vomica, sheakoy, etc.	29	49	110	..	..	159
	Horns, honey, wax, gum, resin, skins, etc.	48	156	..	..	..	156
	Stones, gravel, earth, etc.	..	..	15	..	..	15
	Miscellaneous	10	21	..	..	.	21
		87	226	152	..	..	378
	Total	..	4,093	2,399	..	..	6,492
	Reserved lands.						
	Other produce.						
	Grass (thatch, korai, etc.)	..	..	..	3	..	3
	Unreserved lands.						
	Bamboos in number	..	..	536	5	..	541
	Other produce.						
	Catechu	1,252	12,474	..	..	..	12,474
	Grass (thatch, korai, etc.)	..	.	5	..	..	5
	Tamarind, soapnuts, gallnuts, nux-vomica, sheakoy, etc.	..	..	1,054	..	..	1,054
	Avaram, vembadam, etc., barks and fibres.	..	..	1,824	..	..	1,824
	Stones, gravel, earth, etc.	..	..	491	31	..	522
	Manure leaves, thorns, etc.	..	..	14	..	..	14
	Date and palmyra leaves	..	..	198	6	..	204
	Miscellaneous	..	..	25,302	..	..	25,302
		1,252	12,474	28,888	37	..	41,399
	Total	..	12,474	29,424	42	..	41,940
	Abstract for the Circle.						
	Bamboos in number	111,911	5,772	35,841	88	..	41,701
	Grazing and fodder grass	..	..	79,320	870	..	80,190
	Other produce	4,437	20,518	58,048	45	..	78,611
	Grand total	..	26,290	1,73,209	1,003	..	2,00,502
		NO.					
	Total, Presidency, bamboos	378,369	10,607	3,05,498	987	407	3,17,499
	Grazing and fodder grass	..	..	6,89,635	6,592	936	6,97,163
	Other produce	MDS. 75,572 QRS. 4,437	37,794	8,62,966	574	24,186	9,25,520
	Grand total, Presidency	..	48,401	18,58,099	8,153	25,529	19,40,182

ANNUAL FORM No. 78.

Forest Department, Madras Presidency.

ACCOUNT of timber and other produce cut or collected by Government Agency and brought to depôt, sold locally or otherwise disposed of during 1915–16.

District.	Balance at commencement of the year in forest and sale depôts.	Received during the year.	Total.	Disposed of during the year.	Balance in hand at close of the year in forest and sale depôts.
TIMBER (CUBIC FEET).					
Northern Circle.					
Ganjām	(*f*) 14,296	(*g*) 96,456	(*h*) 110,752	(*i*) 54,775	(*j*) 55,977
Vizagapatam	68	2,245	2,313	685	1,628
Gōdāvari, Upper	2,931	38,387	41,318	29,322	11,996
Do. Lower	327	34,999	35,326	13,711	21,615
Kistna	..	274	274	274	..
Kurnool, East	2,910	9,251	12,161	10,141	2,020
Do. South	498	3,296	3,794	1,622	2,172
Do. West	14,641	86,539	101,180	88,031	13,149
Total ..	35,671	271,447	307,118	198,561	108,557
Central Circle.					
Bellary	432	31	463	81	382
Anantapur	..	..	..	..	..
Guntūr	..	574	574	574	..
Cuddapah, West	1,108	256	1,364	355	1,009
Do. East	1,289	16,757	18,046	17,475	571
Nellore	326	1,275	1,601	1,528	73
Chingleput	64	429	493	393	100
Chittoor	..	494	494	494	..
Total ..	3,219	19,816	23,035	20,900	2,135
Southern Circle.					
Vellore, North	20	65	85	85	..
Do. South	3,904	4,926	8,830	5,923	2,907
Arcot, South	592	..	592	443	149
Salem, North	334	3,920	4,254	3,817	437
Do. South	762	1,899	2,661	2,565	96
Trichinopoly	39	158	197	161	36
Madura	1,150	2,672	3,822	3,098	724
Tinnevelly	412	3,641	4,053	1,998	2,055
Total ..	7,213	17,281	24,494	18,090	6,404
Western Circle.					
Mangalore, North	4,676	4,567	9,243	4,454 (*a*) 513 (*b*) 34	4,242
Do. South	6,857	3,961	10,818	4,331 (*a*) 2,806 (*b*) 246	3,43[illegible]
Malabar, North	15,856	116,765	132,621	98,831 (*a*) 3,766 (*b*) 880 (*c*) 418	28,726
Do. South	169,700	105,894	275,594	71,392 (*a*) 1,559 (*b*) 418	202,225
The Nilgiris	17,616	47,898	65,514	12,018 (*b*) 3	53,493
Kollegal	803	4,547	5,350	827 (*a*) 352 (*b*) 45 (*d*) 3,124	1,002
Coimbatore, North	4,398	7,469 (*d*) 3,124 (*c*) 14	15,005	9,095 (*a*) 921 (*b*) 2,668 (*e*) 31	2,290
Do. Central	1,238	2,090	3,328	1,262 (*a*) 383 (*b*) 106	1,577
Do. South	383,594	15,616	399,210	45,883 (*a*) 1,974 (*b*) 219	351,134
Total ..	604,738	311,945	916,683	268,559	648,124
Grand total, Presidency ..	650,841	620,489	1,271,330	506,110	765,220

(*a*) Used departmentally.
(*b*) Written off the accounts.
(*c*) Excess or deficit in conversion or measurement.
(*d*) Transfers between division.
(*e*) Sent to the Gass Forest Museum.
(*f*) Excludes 119 cubic feet of timber belonging to Parlākimedi Maliahs.
(*g*) Do. 1,602 do. do. do.
(*h*) Do. 1,721 do. do. do.
(*i*) Do. 1,116 do. do. do
(*j*) Do. 605 do. do. do.

Account of timber and other produce cut or collected by Government Agency and brought to depôt, sold locally or otherwise disposed of during 1915–16—*cont.*

District.	Balance at commencement of the year in forest and sale depôts.	Received during the year.	Total.	Disposed of during the year.	Balance on hand at close of the year in forest and sale depôts.
FUEL (CUBIC FEET).					
Northern Circle.					
Ganjām	1,050	(*e*) 24,420	(*f*) 25,470	(*g*) 6,840	(*h*) 18,630
Vizagapatam	* 189	68,960	69,149	69,149	..
Gōdāvari, Upper	2,401	2,808	5,209	4,224	985
Do. Lower	..	13,048	13,048	13,048	..
Kistna	..	10,390	10,390	10,390	..
Kurnool, East	..	46,450	46,450	23,970	22,480
Do. South	164,184	300	164,484	164,404	80
Do. West	161,558	482,374	643,932	485,490	158,412
Total ..	329,382	648,750	978,132	777,515	200,617
Central Circle.					
Bellary	320	4,760	5,080	4,000	1,080
Anantapur	..	..	..	..	..
Guntūr	..	..	..	..	..
Cuddapah, West	4,300	2,400	6,700	2,100	4,600
Do. East	2,826	9,503	12,329	11,629	700
Nellore	3,679	4,587	8,266	6,596	1,670
Chingleput	..	2,011	2,011	2,011	..
Chittoor	..	1,060	1,060	628	432
Total ..	11,125	24,321	35,446	26,964	8,482
Southern Circle.					
Vellore, North	40	10,618	10,658	10,652	6
Do. South	6,300	1,547	7,847	7,507	340
Arcot, South	150 (*a*)+ 150	2,987	3,287	3,281	6
Salem, North	..	2,700	2,700	1,688	1,012
Do. South	105	..	105	105	..
Trichinopoly	7,440 (*a*)− 150	22,285	29,575	28,339	1,236
Madura	..	4,720	4,720	220	4,500
Tinnevelly	4,125	25,575	29,700	28,964	736
Total ..	18,160	70,432	88,592	80,756	7,836
Western Circle.					
Mangalore, North	24,882	13,129 (*d*) 864	38,875	14,359 (*c*) 972	23,544
Do. South	59,536	32,616	92,152	52,516 (*b*) 1,296 (*d*) 864	37,476
Malabar, North	21,280	..	21,280	12,480 (*b*) 8,800	..
Do. South	6,164	5,930	12,094	8,122 (*c*) 717 (*c*) 27	3,228
The Nilgiris	213,205	445,508	658,713	431,977 (*c*) 30	226,706
Kollegal	104,980	107,500	212,480	82,380	130,100
Coimbatore, North	28,545	..	28,545	(*c*) 28,545	..
Do. Central	1,682	16,925	18,607	15,232 (*b*) 200	3,175
Do. South	1,155	..	1,155	1,115 (*c*) 40	..
Total ..	46[illegible],429	622,472	1,083,901	659,672	424,229
Grand total, Presidency ..	820,096	1,365,975	2,186,071	1,544,907	641,164

* The District Forest Officer, Vizagapatam, reports that the difference between the opening balance of the current year and closing balances of the previous year is due to the conversion of charcoal into its equivalent in fuel as per footnote of the revised Form No. 76. One bag of charcoal is taken as equivalent to 1·6 cubic feet. The factor of conversion of the stacked cubic feet to solid cubic feet is taken as ·4 and all figures altered accordingly in Forms Nos. 78 and 79.
(*a*) Represents transfer from Trichinopoly to South Arcot on account of Tanjore Range.
(*b*) Used departmentally.
(*c*) Written off the account.
(*d*) Transfers between divisions.
(*e*) Excludes 19,700 c. ft. of fuel belonging to the Parlakimedi Maliahs.
(*f*) Do. do. do.
(*g*) Excludes 11,160 c.ft. do. do.
(*h*) Do. 8,540 c.ft. do. do.

Account of timber and other produce cut or collected by Government Agency and brought to depôt, sold locally or otherwise disposed of during 1915–16—*cont.*

District.	Balance at commencement of the year in forest and sale depôts.	Received during the year.	Total.	Disposed of during the year.	Balance on hand at close of the year in forest and sale depôts.
		BAMBOOS (NUMBER).			
Northern Circle.					
Ganjām	600	10,645	11,245	10,245	1,000
Vizagapatam	1,375	92,585	93,960	93,960	..
Gōdāvari, Upper	425	4,927	5,352	4,283	1,069
Do. Lower	..	30,146	30,146	26,539	3,607
Kistna	..	..	..	..	..
Kurnool, East	486	113,921	114,407	102,461	11,946
|Do. South	1,600	4,713	6,313	6,313	..
Do. West	..	2,900	2,900	2,900	..
Total ..	4,486	259,837	264,323	246,701	17,622
Central Circle.					
Bellary	328	..	328	328	..
Anantapur	..	..	..	..	..
Guntūr	..	..	..	..	..
Cuddapah, West	..	..	..	..	..
Do. East	1,310	64	1,374	954	420
Nellore	..	..	..	..	..
Chingleput	..	9	9	..	9
Chittoor	..	1,700	1,700	1,700	..
Total ..	1,638	1,773	3,411	2,982	429
Southern Circle.					
Vellore, North	..	24	24	24	..
Do. South	..	..	..	..	..
Arcot, South	..	1,029	1,029	1,027	2
Salem, North	..	3,047	3,047	2,447	600
Do. South	300	520	820	599	221
Trichinopoly	..	..	..	..	..
Madura	..	..	..	..	..
Tinnevelly	..	228	228	228	..
Total ..	300	4,848	5,148	4,325	823
Western Circle.					
Mangalore, North	25	3,490	3,515	2,828 (a) 515	172
Do. South	811	737	1,548	550 (a) 12 (b) 836	150
Malabar, North	4,320	14,616	18,936	18,497 (a) 389 (b) 50	..
Do. South	24,639	75,144	99,783	46,257 (a) 2,146 (b) 107	51,273
Kollegal	18,614	12,272	30,886	30,250 (a) 300 (b) 40	296
Coimbatore, North	..	2,450	2,450	2,420	30
Do. Central	210	3,202	3,412	3,412	..
Total ..	48,619	111,911	160,530	108,609	51,921
Grand total, Presidency ..	55,043	378,369	433,412	362,617	70,795

(a) Used departmentally. (b) Written off the accounts.

Account of timber and other produce cut or collected by Government Agency and brought to depôt, sold locally or otherwise disposed of during 1915-16—*cont.*

District.	Balance at commencement of the year in forest and sale depôts.	Received during the year.	Total.	Disposed of during the year.	Balance on hand at close of the year in forest and sale depôts.
MINOR PRODUCE (MAUNDS OF 28 LB.).					
Northern Circle.					
Ganjām	3	† 155	‡ 158	75	§ 83
Vizagapatam	5,433	2,057	7,490	7,478	12
Gōdāvari, Upper	40,163	8,125	48,288	11,563	36,725
Do. Lower	..	1,087	1,087	1,087	..
Kistna	202	408	610	436	174
Kurnool, East	1,776	7,905	9,681	8,683	998
Do. South	..	4,813	4,813	4,813	..
Do. West	720	13,649	14,369	5,021	9,348
Total ..	48,297	38,199	86,496	39,156	47,340
Central Circle.					
Bellary	..	..	..	..	..
Anantapur	8	12	20	18	2
Guntūr	865	..	865	865	..
Cuddapah, West	..	..	..	..	..
Do. East	* 240	3,231	3,471	2,827	644
Nellore	884	4,907	5,791	3,544	2,247
Chingleput	..	..	..	..	..
Chittoor	..	..	..	..	..
Total ..	1,997	8,150	10,147	7,254	2,893
Southern Circle.					
Vellore, North	245	152	397	336	61
Do. South	..	87	87	21	66
Arcot, South	493 (*a*) + 6	2,349	2,848	2,788	60
Salem, North	..	..	..	..	..
Do. South	..	..	..	..	..
Trichinopoly	328 (*a*) — 6	36	358	358	..
Madura	..	10	10	10	..
Tinnevelly	3	23,589	23,592	23,266	326
Total ..	1,069	26,223	27,292	26,779	513
Western Circle.					
Mangalore, North	..	1,332 (*e*) 12	1,344	1,220 (*b*) 80 (*d*) 12	32
Do. South	..	20	20	(*e*) 12	8
Malabar, North	5	..	5	5	..
Do. South	..	(*f*) .	(*c*) ..	..	(*f*) ..
The Nilgiris	1	697	698	302 (*b*) 356	40
Kollegal	1,834	1,167	3,001	2,546 (*c*) 8	447
Coimbatore, North	1,597	251	1,848	1,728 (*c*) 49	71
Do. Central	5	77 (*e*) 32	114	72	42
Do. South	102	893	995	709 (*e*) 32	254
Total ..	3,544	4,481	8,025	7,131	894
Grand total, Presidency ..	54,907	77,053	131,960	80,320	51,640

* Revised figure.
(†) Excludes 47 quarters of minor forest produce belonging to the Parlakimedi maliahs.
(‡) Do. do. do. do.
(§) Do. do. do. do.
(*a*) Represents transfer from Trichinopoly to South Arcot on account of Tanjore Range.
(*b*) Used departmentally.
(*c*) Written off the accounts.
(*d*) Sent to the Madras Industrial Exhibition.
(*e*) Transfers between divisions.
(*f*) Two hundred and eighty-seven cocoanuts and 4 ivory pieces

Annual Form No. 79.

Forest Department, Madras Presidency.

Statement showing the value of timber and other produce at sale depôts for 1915-16.

District.	Description of timber or produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		Number	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year
	Northern Circle.			RS.			RS.	RS.	RS.
Ganjam	Timber	..	(a) 9,025	(b) 6,209	..	(c) 8,813	(d) 5,758	(e) ..	451
	Fuel	..	..	..	..	(f) 480	(g) 12	(h) 12	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	MDS. 3	..	36	MDS. 82	(i) ..	(j) 1,149	(j) 1,113	..
Vizagapatam.	Timber	..	68	20	..	1,628	1,049	1,029	..
	Fuel	..	* 18[illegible]	59	..	..	..	..	59
	Bamboos	1,375	..	32	..	..	..	..	32
	Minor produce	..	..	..	MDS. 12	..	5	5	..
Gōdāvari, Upper.	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	..	..	..	..	..	..	..	..
Gōdāvari, Lower.	Timber	..	..	..	..	21,615	10,875	10,875	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	3,607	..	67	67	..
	Minor produce	..	..	..	..	..	..	..	..
Kistna	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	..	..	..	..	..	..	..	..
Kurnool, East.	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	..	..	..	..	..	..	..	..
Kurnool, South.	Timber	..	498	527	..	2,172	827	300	..
	Fuel	..	164,184	6,552	..	80	3	..	6,549
	Bamboos	1,600	..	21	..	..	..	..	21
	Minor produce	..	..	..	..	..	..	..	..
Kurnool, West.	Timber	..	..	..	..	..	..	..	..
	Fuel	..	1,469	275	..	1,454	242	..	33
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	MDS. 637	..	288	MDS. 4,990	..	806	518	..
	Central Circle.								
Nellore	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos	..	..	..	..	..	..	..	..
	Minor produce	MDS. 884	..	720	MDS. 2,213	..	1,049	329	..
	Southern Circle.								
Vellore, North.	Timber	..	20	4	..	..	..	..	4
	Fuel	..	40	2	..	6	3	1	..
	Minor produce	MDS. 191	..	84	MDS. 61	..	78	..	6
Vellore, South.	Timber	..	2,939	47,024	..	2,318	48,238	1,214	..
	Fuel	..	400	25	..	..	..	..	25
Arcot, South.	Fue	..	† 150	3	..	..	..	..	3
	Minor produce	MDS. † 6	..	3	..	..	..	..	3
Salem, North.	Timber	..	334	1,272	..	437	2,015	743	..
	Fuel	..	..	..	..	1,012	11	11	..
	Bamboos	..	..	..	600	..	30	30	..
Salem, South.	Timber	..	762	956	..	96	319	..	637
	Fuel	..	105	2	..	..	..	..	2
	Bamboos	300	..	7	221	..	5	..	2

* Please vide remark in Form No. 78.

† Relates to Tanjore Range transferred from Trichinopoly to South Arcot.

(a) Excludes 119 cft. belonging to Parlakimedi Maliahs.
(b) Do. Rs. 166 do. do.
(c) Do. 605 cft. do. do.
(d) Do. Rs. 500 do. do.
(e) Do. Rs. 334 do. do
(f) Excludes 8,540 cft. belonging to Parlakimedi Maliahs.
(g) Do. Rs. 250 do. do.
(h) Do. Rs. 250 do. do.
(i) Do. 47 quarters do. do.
(j) Do. Rs. 900 do. do.

Statement showing the value of timber and other produce at sale depôts for 1915–16—*cont.*

District.	Description of timber or produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.
	Southern Circle—cont.			RS.			RS.	RS.	RS.
Trichinopoly	Timber	..	39	589	..	36	17	..	572
	Fuel	..	7,440 *— 150	275 — 3	..	1,236	30	..	242
	Minor produce ..	MDS. 328 *—6	..	155 — 3	..	..	..	..	152
Madura ..	Timber	..	1,150	424	..	724	215	..	209
	Fuel	..	..	..	..	4,500	281	281	..
Tinnevelly ..	Timber	..	412	784	..	2,055	807	23	..
	Fuel	..	4,125	237	..	736	15	..	222
	Minor produce ..	MDS. 3	..	11	MDS. 326	..	29	18	..
	Western Circle.								
North Mangalore.	Timber	..	2,345	1,890	..	2,722	2,351	461	..
	Bamboos	..	..	..	172	..	19	19	..
North Malabar.	Timber	..	1,401	1,009	..	232	116	..	893
	Fuel	..	2,240	196	..	..	..	..	196
	Bamboos ..	1,441	..	130	..	..	..	..	130
	Minor produce ..	QRS. 5	..	228	..	..	..	..	228
South Malabar.	Timber	..	75	94	..	335	26	..	68
	Fuel	..	..	..	..	22	5	5	..
	Bamboos . ..	..	..	..	9,808	..	495	495	..
	Minor produce ..	..	..	..	(*b*)	..	9	9	..
The Nilgiris.	Timber	..	330 (*a*) 17,229	161 6,792	..	53,493	23,215	16,262	..
	Fuel	..	28,958	2,461	..	36,267	3,077	616	..
	Minor produce ..	..	..	..	QRS. 40	..	240	240	..
Kollegal ..	Timber	..	660	360	..	900	225	..	135
	Bamboos	10,052	..	758	56	..	1	..	757
	Minor produce ..	QRS. 1,304	..	1,530	QRS. 370	..	740	..	790
North Coimbatore.	Timber	..	849	5,713	..	471	3,010	..	2,703
	Minor produce ..	QRS. 1,597	..	2,243	QRS. 71	..	500	..	1,743
Central Coimbatore.	Minor produce ..	QRS. 5	..	401	..	..	..	..	401
South Coimbatore.	Timber	..	240	295	..	28,402	33,544	33,249	..
	Minor produce ..	..	..	..	QRS. 251	..	574	574	..
	ABSTRACT.								
Northern Circle.	Timber	..	9,591	6,756	..	34,228	18,509	11,753	..
	Fuel	..	165,842	6,886	..	2,014	257	..	6,629
	Bamboos ..	2,975	..	53	3,607	..	67	14	..
	Minor produce ..	MDS. 640	..	324	MDS. 5,084	..	1,960	1,636	..
	Total value ..	..	..	14,019	..	..	20,793	6,774	..
Central Circle.	Timber	..	..	..	..	..	..	..	..
	Fuel	..	..	..	..	..	..	..	..
	Bamboos ..	..	..	..	..	..	..	..	..
	Minor produce ..	MDS. 884	..	720	MDS. 2,213	..	1,049	329	..
Southern Circle.	Timber	..	5,656	51,053	..	5,666	51,611	558	..
	Fuel	..	12,110	541	..	7,490	340	..	201
	Bamboos ..	300	..	7	881	..	35	28	..
	Minor produce ..	MDS. 522	..	250	MDS. 387	..	107	..	143
	Total value ..	..	..	51,851	..	..	52,093	242	..
Western Circle.	Timber	..	23,129	16,314	..	86,555	62,487	46,173	..
	Fuel	..	31,198	2,657	..	36,229	3,082	425	..
	Bamboos ..	11,493	..	888	10,036	..	515	..	373
	Minor produce ..	QRS. 2,911	..	4,402	QRS. 732	..	2,063	..	2,339
	Total value..	..	..	24,261	..	..	68,147	43,886	..
	Grand Total, Presidency.	..	..	90,851	..	..	1,42,082	51,231	..

* Relates to Tanjore Range transferred from Trichinopoly to South Arcot.
(*a*) Omitted to be shown in the last year's return by the District Forest Officer.
(*b*) Two hundred and eigty-seven cocoanuts.

ANNUAL

Forest Department,

SUMMARY of Revenue of the different districts

Head of account.	Northern Circle. Direction.	Ganjam.	Vizagapatam.	Gôdâvari, Upper.	Gôdâvari, Lower.	Kistna.	Kurnool, East.	Kurnool, South.	Kurnool, West.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Receipts.									
I. Timber, etc., removed by Government Agency—									
(a) Timber	16	10,529	61	15,557	14	..	4,308	858	20,855
(b) Firewood and charcoal ..	69	83	2,865	131	1,028	7	523	2,761	10,758
(c) Bamboos	..	4	2,085	4	..	..	1,889	9	10
(d) Sandalwood	..	..	..	..	..	..	..	..	..
(e) Grass and other minor produce.	55	51	..	2	40	380	4,363	..	2,956
II. Timber, etc., removed by consumers or purchasers—									
(a) Timber	23	22,090	2,282	1,756	41,180	4,203	2,421	13,121	1,858
(b) Firewood and charcoal ..	..	12,028	2,925	508	38,390	21,778	1,266	13,282	12,164
(c) Bamboos	..	4,549	8,522	16,666	75,526	4.351	4,969	13,379	10,518
(d) Grazing and fodder grass ..	..	8,971	5,390	10,591	15,065	13,663	32,742	9,455	23,128
(e) Other minor produce ..	186	2,258	13,000	709	27,095	14,800	8,586	10,842	36,231
(f) Rents for trees tapped ..	..	1,279	1,852	..	8,188	13,263	1,253	2,096	12,088
(g) Other items	..	..	..	..	..	..	..	..	..
(h) Commutation fees ..	.	..	..	..	..	..	..	..	..
III. Confiscated forest produce, drift and waif-wood.	..	375	201	532	4,294	140	321	1,176	848
IV. Forests not managed by Government—									
(a) Revenue from shared and private forests.	..	..	..	..	..	..	..	..	..
V. Miscellaneous—									
(a) Fines and forfeitures ..	..	2,137	2,825	286	7,889	3,331	5,769	7,732	6,319
(b) Other sources	127	1,856	376	487	7,255	1,564	734	1,553	1,921
Total, Revenue ..	476	(a)66,310	42,384	47,229	2,25,964	77,480	69,144	76,264	1,39,654

Budget heads.	Southern Circle. Direction.	Vellore, North.	Vellore, South.	Arcot, South.	Salem, North.	Salem, South.	Trichinopoly.	Madura.	Tinnevelly.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Receipts.									
I. Timber and other produce removed from the forests by Government Agency—									
(a) Timber	..	40	40	8	2,646	860	..	— 5	173
(b) Firewood and charcoal ..	..	441	14	158	81	14	1,011	20	720
(c) Bamboos	..	1	..	115	150	..	..	..	29
(d) Sandalwood	59,800	..	69,015	..	1	14	313	..	..
(e) Grass and other minor produce.	..	156	..	52	..	..	156	124	43
II. Timber and other produce removed from the forests by consumers or purchasers—									
(a) Timber	..	12,869	7,083	5,301	10,839	9,624	8,964	5,919	2,999
(b) Firewood and charcoal ..	..	19,929	15,455	43,839	8,220	13,207	37,065	37,412	81,587
(c) Bamboos	..	12,483	34,868	446	24,254	28,958	5,047	2,410	410
(d) Grazing and fodder grass ..	..	19,795	25,675	21,226	32,514	20,024	24,076	20,650	5,507
(e) Other produce	594	30,441	14,940	22,974	22,623	25,920	18,910	30,067	24,717
(f) Rents for trees tapped ..	..	7,770	2,021	2,249	1,940	318	10	..	..
(g) Other items	..	..	..	41	798	..	..	..	..
(h) Commutation fees	..	..	..	..	..	606	..	..	..
III. Confiscated drift and waif-wood ..	..	128	231	426	232	250	136	1,966	1,046
IV. Revenue from forest not managed by Government—									
(a) Revenue from shared and private forests.	..	..	..	..	..	..	..	..	..
V. Miscellaneous—									
(a) Fines and forfeitures ..	..	11,479	9,965	12,387	7,365	8,889	7,884	6,799	5,621
(b) Other sources	149	845	923	1,083	1,127	6,298	621	1,085	2,072
Total, Receipts ..	60,543	1,16,380	1,80,230	1,10,305	1,12,790	1,24,982	1,04,193	1,06,447	1,24,924

NOTE.—Revenue under Direction is distributed as follows:—
I. (d) Vellore, South, Rs. 13,273 ; Salem, North, Rs. 30,559 ; Salem, South, Rs. 11,687 ; and Trichinopoly, Rs. 4,281.
II. (e) Vellore, North, Rs. 594.
V. (b) Vellore, South, Rs. 2 ; Salem, North, Rs. 69 ; and Madura, Rs. 178.
(a) Excludes Rs. 16,261-12-3 being revenue realized in Parlakimedi Maliahs.

FORM No. 80.

Madras Presidency.

for the Forest year 1915-16.

Total.	Central Circle. Direction.	Bellary.	Anantapur.	Guntur.	Cuddapah, West.	Cuddapah, East.	Nellore.	Chingleput.	Chittoor.	Total.
RS.	RS.	RS.	RS.	RS	RS.	RS.	RS.	RS.	RS.	RS.
52,198	..	2	..	133	75	731	4	..	4	949
18,225	..	137	..	..	47	101	-- 2,950	56	42	— 2,567
4,001	..	..	14	1	..	..	..	..	..	15
..	..	130	..	..	..	..	..	..	5	135
7,847	..	..	..	34	..	10	8,312	..	1	8,357
88,934										
1,02,341	..	9,519	15,912	16,645	9,605	12,780	5,529	7,291	11,235	88,516
1,38,580	..	10,912	7,281	46,374	12,601	17,269	46,377	14,892	14,115	1,69,821
1,19,005	..	475	..	..	2,980	6,501	8	33	6,263	16,260
1,13,707	..	38,549	32,472	1,04,586	17,767	16,993	74,650	10,497	23,263	3,18,777
40,019	..	82,842	1,30,366	16,529	16,059	9,790	42,470	12,777	45,290	3,56,123
..	..	28,931	15,606	8,624	1,746	1,750	8,425	4,373	5,134	74,589
..	..	..	..	..	..	474	..	..	..	474
7,887	..	..	..	..	..	..	..	..	..	..
	..	116	177	610	685	750	768	186	123	3,415
..	..	..	..	..	..	..	..	..	..	..
36,288	..	8,984	8,547	21,956	6,978	10,330	15,301	6,078	5,886	84,060
15,873	193	802	490	2,340	704	1,263	52,949	523	2,788	62,052
7,44,905	193	1,81,399	2,10,865	2,17,832	69,247	78,742	2,51,843	56,706	1,14,149	11,80,976

Total.	Western Circle. Direction	South Canara. *	North Mangalore. †	South Mangalore. †	North Malabar.	South Malabar.	The Nilgiris.	Kollegal.	North Coimbatore.	Central Coimbatore.	South Coimbatore.	Working Plan Office.	Total.
RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS	RS.	RS.		RS.
3,762	..	3,862	47	309	93,119	1,37,514	(*b*)17,602	205	439	356	47,638	..	3,01093
2,462	..	3,622	63	..	374	420	38,410	2,556	..	787	31	..	46,261
295	..	417	..	..	2,061	6,097	..	534	..	45	..	..	9,154
1,29,143	(*a*)34,812	390	..	..	..	..	6,051	..	(*a*)76,712	13	..	..	1,17978
531	..	12,150	..	..	187	..	674	3,747	2,658	46	1,311	..	20773
63,598	..	19,452	2,648	1,169	2,066	1,533	847	2,379	4,555	3,816	1,272	..	39,737
2,56,714	..	16,388	1,652	348	350	19	2,232	778	10,575	23,423	7,596	..	63,361
1,18,876	..	2,400	208	213	197	702	2,047	968	20,276	6,309	2,449	..	35,769
1,69,467	..	11,476	..	1	2,700	2	10,151	19,201	25,942	7,636	2,213	..	79,322
1,91,186	..	21,318	444	311	5,372	2,074	(*d*) 2,979	2,946	7,161	9,478	6,163	..	58,246
14,308	..	1,193	3	7	..	..	..	24	..	13	..	..	1,240
839	..	..	..	..	..	..	..	..	..	..	..	..	..
606	..	..	..	..	..	..	..	..	..	..	..	..	..
4,415	..	2,728	82	81	212	1	33	34	101	469	165	..	3,906
..	..	..	..	..	..	..	..	..	..	..	..	..	..
70,389	..	10,553	1,947	327	423	476	1,099	2,578	6,474	5,429	1,955	..	31,261
14,203	1,18,624	5,238	484	130	9,592	(*c*) 9,854	6,194	1,738	3,000	2,264	6,581	..	1,63,699
10,40,794	1,53,436	1,11,187	7,578	2,896	1,16,653	1,58,692	88,319	37,688	1,57,893	60,084	77,374	..	9,71,800

* Up to 15th May 1916. † From 16th May 1916 to the close of the year.

The Revenue under *Direction* is distributed as follows :—

V. (*b*) *North Malabar*, Rs. 7 ; *South Malabar*, Rs. 9,041 ; *The Nilgiris*, Rs. 25,301 ; *Kollegal*, Re. 1 ; *North Coimbatore*, Rs. 6 ; *South Coimbatore*, Rs. 84,157 ; *Direction*, Rs. 111.

(*a*) I (*d*) Out of Rs. 1,11,524 credited under *Direction* and *North Coimbatore*, Rs. 52,290 appertain to *Kollegal* and Rs. 59,234 to *North Coimbatore*.

(*b*) Includes Rs. 6,009 appertaining to *South Coimbatore*.

(*c*) Includes Rs. 7,145 appertaining to *the Nilgiris*.

(*d*) Includes Rs. 1,027 appertaining to *Central Coimbatore*.

SUMMARY of expenditure of the different districts for the Forest year 1915–16.

Head of account.	Direction.	Ganjām.	Vizagapatam.	Gōdāvari, Upper.	Gōdāvari, Lower.	Kistna.	Kurnool, East.	Kurnool, South.	Kurnool West.	Total.
NORTHERN CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1. Refunds and drawbacks— Forest refunds	..	568	24	69	65	904	259	206	364	2,459
A. Conservancy and Works.										
I. Timber, etc., removed by Government Agency—										
(a) Timber	..	4,455	174	4,434	..	367	1,658	93	12,021	23,202
(b) Firewood and charcoal	..	200	1,456	92	158	265	435	..	6,180	8,786
(c) Bamboos	..	50	820	3	..	..	1,107	— 1	9	1,988
(d) Sandalwood	..	..	..	..	..	..	..	..	..	..
(e) Grass and other minor produce	..	798	..	35	11	203	2,942	100	3,908	7,997
II. Timber, etc., removed by consumers, etc.	..	5,657	4,378	3,473	12,169	1,344	6,061	6,354	9,214	48,650
III. Confiscated forest produce, drift and waif-wood.	..	24	..	..	1,709	2	2	36	62	1,835
IV. Forests not managed by Government	..	..	..	..	..	..	..	..	..	..
V. Rent of leased forests, etc.	..	..	474	..	..	..	..	..	..	474
VI. Live-stock, stores, tools and plant—										
(a) Purchase of cattle	..	..	..	..	..	..	20	..	..	20
(b) Feed and keep of cattle	..	3,402	1,126	1,786	..	4	..	356	3,433	10,107
(c) Stores, tools and plant	109	76	214	2,410	5,319	1,021	396	121	604	10,270
VII. Communications and buildings—										
(a) Roads and bridges	..	4,372	259	2,804	2,016	2,682	11,336	5,443	2,550	31,462
(b) Buildings	..	6,855	1,522	1,502	5,103	679	6,167	2,569	2,252	26,649
(c) Other works	..	94	..	931	816	30	937	172	558	3,538
VIII. Organization, improvement and extension of forests—										
(a) Demarcation	..	570	325	962	1,120	199	298	324	604	4,402
(b) Cost of forests settlements, compensation for lands and rights.	..	57	..	..	136	..	..	..	..	193
(c) Surveys—										
(1) Local surveys	37	641	119	1,564	1,266	1,013	1,167	1,631	822	8,260
(2) Surveys of India	..	..	..	..	..	..	..	..	..	..
(d) Working plans	..	26	..	..	14	..	..	..	57	97
(e) Sowing and planting	896	113	10	134	..	540	516	661	21,838	24,708
(f) Protection from fire	..	5,020	1,613	7,910	5,035	1,430	11,332	11,660	13,442	57,442
(g) Other works	..	72	10	..	1,841	5,912	2,732	1,697	3,871	16,135
IX. Miscellaneous—										
(a) Law charges	..	..	..	..	..	..	..	..	..	..
(b) Other charges	443	451	9	..	14	102	197	212	399	1,827
Total, A. Conservancy and Works	1,485	(a) 32,933	12,509	28,040	36,727	15,793	47,303	31,428	81,824	2,88,042
B. Establishments.										
I. Salaries—										
(a) Conservators	21,737	..	..	..	..	..	..	60	..	21,797
(b) Superior officers	7,473	13,042	3,450	8,830	8,605	7,606	6,000	7,694	11,604	74,304
(c) Subordinate establishments, etc.	610	21,444	8,665	14,699	16,157	8,652	16,686	20,969	20,699	1,28,581
(d) Office establishments	9,617	8,057	4,042	5,276	7,043	3,778	5,058	5,906	7,252	56,029
(e) Deputation, etc., allowances	..	..	..	..	..	..	..	..	..	..
II. Travelling allowances—										
(a) Conservators	2,620	618	..	200	..	285	..	..	..	3,723
(b) Superior officers	545	3,051	1,423	1,587	1,279	1,480	1,625	1,962	2,636	15,588
(c) Subordinate establishments, etc.	105	5,817	1,979	4,554	4,955	2,799	5,350	7,298	6,550	39,407
(d) Office establishment	1,189	2,268	880	1,496	1,175	1,141	1,749	1,072	1,657	12,627
III. Contingencies—										
(a) Rents, rates and taxes	133	131	22	246	432	158	22	58	108	1,310
(b) Official postage and service telegrams	1,030	1,396	750	991	1,124	1,125	921	872	1,457	9,666
(c) Telephone charges	..	..	..	..	..	..	..	..	..	..
(d) Sundries	4,958	1,993	1,234	1,522	3,058	1,286	1,849	1,512	1,197	18,609
Total, B. Establishments	50,017	57,817	22,445	39,401	43,828	28,310	39,260	47,403	53,160	3,81,641
Grand Total of Expenditure A and B	51,502	(b) 90,750	34,954	67,441	80,555	44,103	86,563	78,831	1,34,984	6,69,683

(a) Excludes Rs. 9,804–15–7 spent under A. Conservancy works in Parlakimedi Maliahs.
(b) Excludes Rs. 23,457–1–10 spent under B. Establishment in Parlakimedi Maliahs.

Summary of expenditure of the different districts for the Forest year 1915–16—*cont.*

Budget heads.	Direction.	Bellary.	Anantapur.	Guntūr.	Cuddapah, West.	Cuddapah, East.	Nellore.	Chingleput.	Chittoor.	Total.
CENTRAL CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Refunds and Drawbacks	..	1,835	377	1,650	610	352	1,628	328	1,824	8,604
A. Conservancy and Works.										
I. Timber and other produce removed from the forests by Government Agency—										
(*a*) Timber	..	..	..	12	..	..	..	..	..	12
(*b*) Firewood and charcoal	..	105	..	..	..	5	..	..	7	117
(*c*) Bamboos	..	..	..	..	..	..	..	..	..	..
(*d*) Sandalwood	..	124	..	..	..	..	..	..	..	124
(*e*) Grass and other minor produce ..	..	..	..	..	..	42	2,070	..	..	2,112
II. Timber and other produce removed from the forests by consumers or purchasers.	..	2,993	1,771	4,304	4,366	9,237	2,422	3,219	2,538	30,850
III. Confiscated drift and waif-wood	..	2	4	..	14	26	..	..	7	53
IV. Forests not managed by Government—										
(*a*) Shared and private forests	..	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	8,000	..	..	..	..	..	..	..	8,000
VI. Live-stock, stores, tools and plant—										
(*a*) Purchase of cattle	..	..	..	..	..	..	..	..	..	..
(*b*) Feed and keep of cattle	..	..	..	..	..	..	..	29	..	29
(*c*) Stores, tools and plant	133	179	— 178	155	126	234	1,784	151	440	3,024
VII. Communications and buildings—										
(*a*) Roads and bridges	..	870	731	275	1,519	5,288	1,691	857	1,950	13,181
(*b*) Buildings	..	865	2,753	1,317	2,841	7,124	2,962	1,412	3,187	22,461
(*c*) Other works	..	30	98	186	168	290	12	74	8	866
VIII. Demarcation, improvement and extension of forests—										
(*a*) Demarcation	..	270	1,183	481	294	1,483	967	499	1,628	6,805
(*b*) Cost of forest settlement; compensation for land and rights.	..	..	462	..	152	781	— 73	..	..	1,322
(*c*) Surveys .. { Local	892	1,516	486	380	375	610	1,019	386	400	6,064
(*c*) Surveys .. { India	..	..	..	..	..	..	..	..	..	..
(*d*) Working plans	..	..	..	9	..	..	21	..	..	30
(*e*) Sowing and planting	..	40	147	348	..	507	1,236	8	829	3,115
(*f*) Protection from fire	..	3,909	5,057	15	4,390	5,588	1,230	942	1,249	22,380
(*g*) Other works	..	11,508	9,271	9,868	4,237	5,771	5,433	8,613	10,948	65,649
IX. Miscellaneous—										
(*a*) Law charges	..	..	..	..	..	..	28	..	..	28
(*b*) Other charges	261	..	14	117	68	374	— 355	41	133	653
Total, A. Conservancy and Works ..	1,286	30,411	21,799	17,467	18,550	37,360	20,447	16,231	23,324	1,86,875
B. Establishments.										
I. Salaries—										
(*a*) Conservators	19,136	..	..	..	..	..	..	..	..	19,136
(*b*) Superior officers	10,974	17,993	4,190	7,067	3,647	11,337	17,780	4,041	11,724	88,753
(*c*) Subordinate Forest and Depot establishments.	1,410	18,030	15,017	11,966	12,909	21,729	19,577	7,758	14,461	1,22,857
(*d*) Office establishments	7,947	5,924	5,282	5,531	4,454	6,399	12,535	3,428	5,094	56,594
(*e*) Deputation and special allowances ..	..	..	..	..	..	..	..	..	..	..
(*f*) Exchange compensation allowance ..	..	..	..	..	..	..	..	..	..	..
II. Travelling allowances—										
(*a*) Conservators	2,883	..	..	..	..	..	..	..	..	2,883
(*b*) Superior officers	317	2,613	1,620	1,364	1,264	2,041	2,212	1,568	2,333	15,332
(*c*) Subordinate Forest and Depot establishments.	134	5,216	4,220	3,970	4,714	5,752	5,981	2,414	3,978	36,379
(*d*) Office establishments	963	1,213	850	1,090	674	1,055	2,936	1,178	896	10,855
III. Contingencies—										
(*a*) Contract contingencies	1,277	3,006	2,300	1,760	1,339	2,216	3,291	1,224	1,825	18,238
(*b*) Non-contract contingencies	2,480	766	306	145	276	233	117	359	80	4,762
Grain compensation allowance	312	..	2	975	1,130	1,657	511	647	195	5,429
Total, B. Establishments .	47,833	54,761	33,787	33,868	30,407	52,419	64,940	22,617	40,586	3,81,218
Grand Total of Expenditure A and B ..	49,119	85,172	55,586	51,335	48,957	89,779	85,387	38,848	63,910	5,68,093

Summary of expenditure of the different districts for the Forest year 1915-16—*cont.*

Budget heads.	Direction.	Working-plans officer, Southern Circle.	Vellore, North.	Vellore, South.	Arcot, South.	Salem, North.	Salem, South.	Trichinopoly.	Madura.	Tinnevelly.	Total.
SOUTHERN CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Refunds and Drawbacks	9	..	273	4,786	1,276	328	783	278	830	1,230	9,793
11—FORESTS.											
A. Conservancy and Works.											
I. Timber and other produce removed from the forests by Government Agency—											
(a) Timber	..	..	..	3	..	752	437	..	..	..	1,192
(b) Firewood and charcoal	..	..	..	— 5	..	56	..	379	..	310	740
(c) Bamboos	..	..	..	..	15	108	..	..	..	13	136
(d) Sandalwood	..	..	..	6,586	..	2,239	683	225	..	..	9,733
(e) Grass and other minor produce ..	..	..	13	..	..	..	..	..	..	31	44
II. Timber and other produce removed from the forests by consumers or purchasers.	..	..	2,106	2,271	1,695	2,003	2,847	2,234	2,272	2,996	18,424
III. Confiscated, drift and waif-wood	..	..	1	4	..	4	12	2	1	..	24
IV. Forests not managed by Government—											
(a) Shared and private forests	..	..	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	..	..	..	106	..	..	..	..	106
VI. Live-stock, stores, tools and plant—											
(a) Purchase of cattle	..	..	..	..	..	..	..	..	..	..	..
(b) Feed and keep of cattle	..	..	7	4	..	..	4	..	..	..	15
(c) Stores, tools and plant	304	239	254	1,702	238	868	188	78	362	439	4,672
VII. Communications and buildings—											
(a) Roads and bridges	..	..	1,162	1,713	293	2,526	3,385	1,805	6,441	3,043	20,368
(b) Buildings	..	..	5,007	6,391	1,820	5,537	4,626	1,727	5,483	7,489	38,080
(c) Other works	..	..	993	145	18	1,083	65	115	662	330	3,411
VIII. Demarcation, improvement and extension of forests—											
(a) Demarcation	..	..	39	175	45	500	354	193	2,249	486	4,041
(b) Cost of forest settlement; compensation for land and rights.	..	..	1,218	2,342	..	..	12	1,242	4,146	..	8,960
(c) Surveys .. Local	523	..	440	474	387	983	1,193	535	284	1,348	6,167
India	..	..	..	..	..	..	..	..	..	..	..
(d) Working plans	..	8,279	..	..	61	..	..	..	..	..	8,340
(e) Sowing and planting	..	..	1,000	43	33	96	1	— 79	1,682	550	3,326
(f) Protection from fire	..	..	649	455	139	3,437	1,755	503	5,181	5,100	17,219
(g) Other works	..	..	6,899	7,852	6,187	6,467	3,889	6,529	9,032	5,657	52,512
IX. Miscellaneous—											
(a) Law charges	..	..	..	..	..	..	49	..	.	..	49
(b) Other charges	467	..	28	414	6	1,069	36	138	53	41	2,252
Total, A. Conservancy and Works ..	1,294	8,518	19,816	30,569	10,937	27,834	19,536	15,626	37,848	27,833	1,99,811
B. Establishment.											
I. Salaries—											
(a) Conservators	22,060	..	..	..	..	..	..	..	..	..	22,060
(b) Superior officers	6,153	8,044	6,080	7,494	4,879	16,600	7,250	8,275	16,937	11,717	93,429
(c) Subordinate Forest and Depot establishments.	1,650	2,437	9,452	14,722	10,771	17,018	13,351	11,965	16,971	16,854	1,15,191
(d) Office establishments	8,765	2,644	3,554	5,757	4,985	5,622	5,814	6,090	5,552	5,638	54,421
(e) Deputation and Special allowances ..	..	..	..	..	..	..	..	..	..	..	..
(f) Exchange compensation allowance ..	..	..	..	..	..	..	..	..	..	..	..
II. Travelling allowances—											
(a) Conservators	1,507	..	159	497	236	..	58	..	.	..	2,457
(b) Superior officers	231	3,541	983	1,767	1,951	1,899	1,949	1,152	2,151	1,488	17,112
(c) Subordinate Forest and Depot establishments.	174	1,026	2,204	3,349	3,097	5,493	3,751	3,116	4,219	4,323	30,752
(d) Office establishments	1,158	1,022	382	668	947	840	755	651	1,359	985	8,767
III. Contingencies—											
(a) Rents, rates and taxes	..	..	233	331	223	63	60	101	191	264	1,466
(b) Service postage and telegrams	1,086	299	861	1,320	989	1,515	689	979	1,386	925	10,049
(d) Sundries	3,800	1,370	847	1,565	863	1,564	1,358	1,256	1,146	1,033	14,802
Total, B. Establishment ..	46,584	20,383	24,755	37,470	28,941	50,614	35,035	33,585	49,912	43,227	3,70,506
Grand Total of Expenditure A and B ..	47,878	28,901	44,571	68,039	39,878	78,448	54,571	49,211	87,760	71,060	5,70,317

Summary of expenditure of the different districts for the Forest year 1915–16—*cont.*

Budget heads.	Direction.	South Canara.	North Mangalore.	South Mangalore.	North Malabar.	South Malabar.	The Nilgiris.	Kollegal.	North Coimbatore.	Central Coimbatore.	South Coimbatore.	Working plans office.*	Total.
WESTERN CIRCLE.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Refunds and Drawbacks ..	..	1,621	..	..	150	27	489	..	83	313	..	...	2,683
A. Conservancy and Works.													
I. Timber and other produce removed from the forests by Government Agency—													
(*a*) Timber	..	1,001	18	25	16,251	8,777	3,860	32	66	116	13,861	..	44,007
(*b*) Firewood and charcoal.	..	1,368	..	15	268	124	23,283	1,171	105	245	..	..	26,579
(*c*) Bamboos	..	153	..	..	995	4,223	— 49	349	..	12	..	..	5,683
(*d*) Sandalwood	..	9	..	..	..	..	232	3,424	5,213	5	..	..	8,883
(*e*) Grass and other minor produce.	..	2,129	35	8	..	7	355	1,811	805	29	758	..	5,937
II. Timber and other produce removed from the forests by consumers or purchasers.	.	5,770	624	516	485	240	784	1,638	2,516	2,502	2,094	..	17,169
III. Confiscated, drift and waif-wood.	..	47	30	..	2	38	..	2	4	1	17	..	141
IV. Revenue from forests not managed by Government.	..	..	..	..	..	..	..	..	..	..	..	..	..
V. Rent of leased forests and payments to shareholders in forests managed by Government.	..	..	..	..	50	980	4,500	..	..	..	2,500	..	8,030
VI. Live-stock, stores, tools and plant—													
(*a*) Purchase of cattle ..	..	709	..	..	2,343	1,655	5,615	..	..	496	2,711	..	13,529
(*b*) Feed and keep of cattle.	505	2,100	..	623	8,999	16,634	27,843	..	..	..	14,899	..	71,603
(*c*) Stores, tools and plant.	866	235	..	7	617	2,062	1,283	502	828	370	3,352	..	10,122
VII. Communications and buildings—													
(*a*) Roads and bridges ..	..	1,705	..	86	3,855	3,042	6,611	3,811	8,924	1,024	14,164	..	43,222
(*b*) Buildings	121	8,475	386	723	8,897	4,339	3,704	2,789	7,599	4,399	3,363	..	44,795
(*c*) Other works	..	95	10	107	527	1,776	734	226	657	64	268	..	4,464
VIII. Demarcation, improvement and extension of forests—													
(*a*) Demarcation ..	..	67	17	..	935	563	2,829	556	1,247	108	4	..	6,326
(*b*) Cost of Forest Settlement; compensation for land and rights.	..	..	..	..	..	..	..	3,565	326	45	1,576	..	5,512
(*c*) Surveys .. { Local ..	..	363	.	..	556	411	2,376	582	433	454	770	..	5,945
(*c*) Surveys .. { India ..	..	..	..	..	..	..	..	..	..	..	..	..	..
(*d*) Working plans ..	..	103	..	..	..	532	..	..	..	..	..	1,144	1,779
(*e*) Sowing and planting ..	636	..	34	49	1,299	5,877	1,362	9	64	55	700	..	10,085
(*f*) Protection from fire ..	..	3,432	244	518	7,054	2,675	3,903	3,131	3,313	2,455	2,278	..	29,003
(*g*) Other works	..	481	20	2	2,546	1,727	1,545	2,768	4,437	8,555	4,776	..	26,857
IX. Miscellaneous—													
(*a*) Law charges	..	..	..	..	..	..	3	10	..	1	..	..	14
(*b*) Other charges	473	289	..	30	42	151	6,530	4	462	618	954	..	9,553
Total, A. Conservancy and Works ..	2,601	28,531	1,418	2,709	55,721	55,833	97,303	26,380	36,999	21,554	69,045	1,144	3,99,238
B. Establishments.													
I. Salaries—													
(*a*) Conservators	20,080	..	..	..	..	..	..	..	..	..	..	..	20,080
(*b*) Superior officers	8,993	10,390	310	460	8,108	9,898	19,561	3,610	16,800	7,223	24,098	1,910	1,11,361
(*c*) Subordinate Forest and Depot establishments.	610	14,298	1,413	1,588	13,279	7,462	18,015	9,412	15,977	8,523	9,493	271	1,00,341
(*d*) Office establishments ..	9,367	5,727	560	462	6,391	4,701	6,480	3,826	5,238	4,234	6,196	239	53,421
(*e*) Grain compensation allowance.	190	1,637	173	173	1,279	895	1,469	786	1,309	938	722	8	9,579
II. Travelling allowances—													
(*a*) Conservators	2,014	..	..	..	..	..	..	..	..	..	..	..	2,014
(*b*) Superior officers	638	1,558	..	302	1,997	2,534	3,446	1,835	2,455	1,594	3,694	348	20,401
(*c*) Subordinate Forest and Depot establishments.	136	3,961	381	402	2,903	2,276	3,174	2,082	4,210	2,978	2,038	43	24,584
(*d*) Office establishments ..	582	1,077	93	107	533	849	547	627	839	818	1,128	95	7,296
III (*a*) Contract contingencies—													
1. Official postage and service stamps.	548	1,344	217	148	567	649	858	376	760	403	1,060	1	6,931
2, 3, 4 and (*b*) 2	6,566	1,460	127	148	1,186	2,159	1,370	1,104	1,230	738	2,290	370	18,748
(*b*) 1. Rents, rates and taxes ..	105	24	..	..	13	57	1,297	620	36	46	126	..	2,324
Total, B. Establishments ..	49,829	41,476	3,274	3,790	36,256	31,480	56,217	24,278	48,854	27,495	50,845	3,285	3,77,079
Grand Total of Expenditure A and B	52,430	70,007	4,692	6,499	91,977	87,313	1,53,520	50,658	85,853	49,049	1,19,890	* 4,429	7,76,317

* For June 1916. Relates to the Southern Circle.

SUMMARY of receipts and expenditure during 1915-16 for each Circle and for the Presidency compiled in the Board's office from the Conservators' statements.

Budget heads.	Northern Circle.	Central Circle.	Southern Circle.	Western Circle.	Grand total, Presidency.	
					1915-16.	1914-15.
RECEIPTS.	RS.	RS.	RS.	RS.	RS.	RS.
I. Timber and other produce removed from the forests by Government Agency—						
(a) Timber	52,198	949	3,762	3,01,091	3,58,000	3,15,104
(b) Firewood and charcoal ..	18,225	— 2,567	2,462	46,263	64,383	1,06,460
(c) Bamboos	4,001	15	295	9,154	13,465	11,971
(d) Sandalwood	..	135	1,29,143	1,17,978	2,47,256	1,76,162
(e) Grass and other minor produce.	7,847	8,357	531	20,773	37,508	51,196
Total, I ..	82,271	6,889	1,36,193	4,95,259	7,20,612	6,60,893
II. Timber and other produce removed from the forests by consumers, etc.—						
(a) Timber	88,934	88,516	63,598	39,737	2,80,785	3,52,212
(b) Firewood and charcoal ..	1,02,341	1,69,821	2,56,714	63,361	5,92,237	8,99,785
(c) Bamboos	1,38,580	16,260	1,18,876	35,769	3,09,485	2,47,309
(d) Grazing and fodder grass..	1,19,005	3,18,777	1,69,467	79,322	6,86,571	6,96,334
(e) Other produce	1,13,707	3,56,123	1,91,186	58,246	7,19,262	6,00,010
(f) Tree-owners' fees	40,019	74,589	14,308	1,240	1,30,156	95,189
(g) Other items	..	474	839	..	1,313	891
(h) Commutation fees	..	..	606	..	606	476
Total, II ..	6,02,586	10,24,560	8,15,594	2,77,675	27,20,415	28,92,206
III. Confiscated drift and waifwood ..	7,887	3,415	4,415	3,906	19,623	18,383
IV. Revenue from forests not managed by Government.	..	..	..	..	..	..
V. Miscellaneous—						
(a) Fines and forfeitures ..	36,288	84,060	70,389	31,261	2,21,998	2,42,126
(b) Other sources	15,873	62,052	14,203	1,63,699	2,55,827	2,04,244
Total, V ..	52,161	1,46,112	84,592	1,94,960	4,77,825	4,46,370
Grand Total, Receipts ..	7,44,905	11,80,976	10,40,794	9,71,800	39,38,475	40,17,852
EXPENDITURE.						
1. Refunds and drawbacks	2,459	8.604	9,793	2,683	23,539	37,322
A. Conservancy and Works.						
I. Timber and other produce removed from the forests by Government Agency—						
(a) Timber	23,202	12	1,192	44,007	68,413	52,604
(b) Firewood and charcoal ..	8,786	117	740	26,579	36,222	39,226
(c) Bamboos	1,988	..	136	5,683	7,807	8,822
(d) Sandalwood	..	124	9,733	8,883	18,740	15,180
(e) Grass and other minor produce.	7,997	2,112	44	5,937	16,090	16,610
Total, A-I ..	41,973	2,365	11,845	91,089	1,47,272	1,32,442
II. Timber and other produce removed from the forests by consumers or purchasers.	48,650	30,850	18,424	17,169	1,15,093	1,25,898
III. Confiscated drift and waifwood ..	1,835	53	24	141	2,053	3,148
V. Rent of leased forests and payments to shareholders in forests managed by Government.	474	8,000	106	8,030	16,610	20,183
VI. Live-stock, stores, tools and plant—						
(a) Purchase of cattle ..	20	..	..	13,529	13,549	13,010
(b) Feed and keep of cattle ..	10,107	29	15	71,603	81,754	78,628
(c) Stores, tools and plant ..	10,270	3,024	4,672	10,122	28,088	33,037
Total, A-VI ..	20,397	3,053	4,687	95,254	1,23,391	1,24,675
VII. Communications and buildings—						
(a) Roads and bridges ..	31,462	13,181	20,368	43,222	1,08,233	1,25,219
(b) Buildings	26,649	22,461	38,080	44,795	1,31,985	1,49,769
(c) Other works	3,538	866	3,411	4,464	12,279	17,767
Total, A-VII ..	61,649	36,508	61,859	92,481	2,52,497	2,92,755

Summary of receipts and expenditure during 1915-16 for each Circle and for the Presidency compiled in the Board's office from the Conservators' statements—*cont.*

Budget heads	Northern Circle.	Central Circle.	Southern Circle.	Western Circle.	Grand total, Presidency. 1915-16.	Grand total, Presidency. 1914-15.
EXPENDITURE—*cont.*	RS.	RS.	RS.	RS.	RS.	RS.
A. Conservancy and Works—cont.						
VIII. Demarcation, etc.—						
(*a*) Demarcation	4,402	6,805	4,041	6,326	21,574	33,843
(*b*) Cost of settlement ..	193	1,322	8,960	5,512	15,987	1,89,921
(*c*) Surveys. (1) Local ..	8,260	6,064	6,167	5,945	26,436	29,217
(*c*) Surveys. (2) India ..	..	..	..	..	..	..
(*d*) Working-plans	97	30	8,340	1,779	10,246	6,187
(*e*) Sowing and planting ..	24,708	3,115	3,326	10,085	41,234	72,846
(*f*) Protection from fire ..	57,442	22,380	17,219	29,003	1,26,044	1,40,101
(*g*) Other works	16,135	65,649	52,512	26,857	1,61,153	1,68,793
Total, A-VIII ..	1,11,237	1,05,365	1,00,565	85,507	4,02,674	6,40,908
IX. Miscellaneous—						
(*a*) Law charges	..	28	49	14	91	689
(*b*) Other charges	1,827	653	2,252	9,553	14,285	11,276
Total, A-IX ..	1,827	681	2,301	9,567	14,376	11,965
Total, A. Conservancy and Works, including Refunds.	2,90,501	1,95,479	2,09,604	4,01,921	10,97,505	13,89,296
B. Establishments.						
I. Salaries—						
(*a*) Conservators	21,797	19,136	22,060	20,080	83,073	88,392
(*b*) Superior officers	74,304	88,753	93,429	1,11,361	3,67,847	3,74,253
(*c*) Subordinate forest and depôt establishments.	1,28,581	1,22,857	1,15,191	1,00,341	4,66,970	4,73,801
(*d*) Office establishments ..	56,029	56,594	54,491	53,421	2,20,465	2,28,778
(*e*) Grain compensation allowance.	..	..	..	9,579	9,579	..
Total, B-I ..	2,80,711	2,87,340	2,85,101	2,94,782	11,47,934	11,65,224
II. Travelling allowances—						
(*a*) Conservators	3,723	2,883	2,457	2,014	11,077	9,893
(*b*) Superior officers	15,588	15,332	17,112	20,401	68,433	65,354
(*c*) Subordinate forest and depôt establishments.	39,407	36,379	30,752	24,584	1,31,122	1,28,525
(*d*) Office establishment ..	12,627	10,855	8,767	7,295	39,544	40,602
Total, B-II ..	71,345	65,449	59,088	54,294	2,50,176	2,44,374
III. Contingencies—						
(*a*) Rents, rates and taxes ..	1,310	18,238	1,466	6,931	27,945	6,618
(*b*) Official postage and telegrams.	9,666	4,762	10,049	18,748	43,225	36,474
(*c*) Sundries	18,609	5,429	14,802	2,324	41,164	94,665
Total, B-III ..	29,585	28,429	26,317	28,003	1,12,334	1,37,757
Total, B. Establishments ..	3,81,641	3,81,218	3,70,506	3,77,079	15,10,444	15,47,355
Grand Total Expenditure including Refunds and Drawbacks.	6,72,142	5,76,697	5,80,110	7,79,000	26,07,949	29,36,651
Surplus	72,763	6,04,279	4,60,684	1,92,800	13,30,526	10,81,201
Total ..	7,44,905	11,80,976	10,40,794	9,71,800	39,38,475	40,17,852

Annual Form No. 81.

Forest Department, Madras Presidency.

Outstandings and Liabilities on account of Contractors and Disbursers for the Forest year 1915-16.

Districts.	Department debtor.			Department creditor.			Balance due.	
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To department (outstandings).	By department (liabilities).
		RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	
Northern Circle.								
Direction, Northern Circle ..	..	1,732 2 4	1,732 2 4	119 2 10	1,660 5 1	1,779 7 11	47 5 7	..
Ganjām ..	..	(a)78,756 8 5	(b) 78,756 8 5	(c)2,576 0 3	(d) 78,577 9 7	(e) 81,153 9 10	(f)2,397 1 5	..
Vizagapatam ..	..	28,563 2 5	28,563 2 5	984 14 3	28,188 15 4	29,173 13 7	610 11 2	..
Gōdāvari, Upper ..	..	43,222 7 9	43,222 7 9	1,032 11 1	43,556 9 9	44,589 4 10	1,366 13 1	..
Do. Lower ..	..	73,358 3 0	73,358 3 0	1,627 13 8	73,128 4 5	74,756 2 1	1,397 15 1	..
Kistna ..	..	32,317 6 10	32,317 6 10	1,051 9 7	31,810 2 2	32,861 11 9	544 4 11	..
Kurnool, East ..	..	95,256 13 10	95,256 13 10	2,215 0 2	95,120 13 9	97,335 13 11	2,079 0 1	..
Do. South ..	..	64,216 12 10	64,216 12 10	1,497 6 1	64,596 1 4	66,093 7 5	1,876 10 7	..
Do. West ..	..	1,67,224 11 7	1,67,224 11 7	2,964 1 3	1,68,587 12 5	1,71,551 13 8	4,327 2 1	..
Total ..	..	5,84,648 5 0	5,84,648 5 0	14,068 11 2	5,85,226 9 10	5,99,295 5 0	14,647 0 0	..
Central Circle.								
Direction, Central Circle ..	..	996 1 8	996 1 8	38 7 3	966 4 0	1,004 11 3	8 9 7	..
Guntūr ..	..	40,408 2 4	40,408 2 4	299 5 3	40,320 10 6	40,619 15 9	211 13 5	..
Nellore ..	..	60,431 6 11	60,431 6 11	2,285 10 6	59,938 4 0	62,223 14 6	1,792 7 7	..
Cuddapah, East ..	..	88,187 7 9	88,187 7 9	2,194 15 10	88,278 3 6	90,473 3 4	2,285 11 7	..
Do. West ..	..	45,934 4 6	45,934 4 6	1,931 1 4	45,092 14 2	47,023 15 6	1,089 11 0	..
Bellary ..	..	54,649 10 2	54,649 10 2	997 7 9	54,089 7 9	55,086 15 6	437 5 4	..
Anantapur ..	..	50,740 7 7	50,740 7 7	806 11 3	50,872 0 5	51,678 11 8	938 4 1	..
Chittoor ..	..	52,277 10 10	52,277 10 10	1,061 3 0	51,464 8 10	52,525 11 10	248 1 0	..
Chingleput ..	..	33,122 13 2	33,122 13 2	1,213 2 2	32,240 15 6	33,454 1 8	331 4 6	..
Total ..	..	4,26,748 0 11	4,26,748 0 11	10,828 0 4	4,23,263 4 8	4,34,091 5 0	7,343 4 1	..
Southern Circle.								
Direction, Southern Circle ..	..	1,676 7 1	1,676 7 1	21 3 4	1,705 6 9	1,726 10 1	50 3 0	..
Vellore, North ..	..	36,312 3 1	36,312 3 1	1,178 4 8	36,243 1 7	37,421 6 3	1,109 3 2	..
Do. South ..	..	56,010 5 0	56,010 5 0	1,153 12 11	56,391 15 11	57,545 12 10	1,535 7 10	..
Arcot, South—Tanjore ..	..	30,637 8 5	30,637 8 5	280 10 7	30,878 10 5	31,159 5 0	521 12 7	..
Salem, North ..	..	57,128 15 1	57,128 15 1	1,252 7 2	56,654 4 0	57,906 11 2	777 12 1	..
Do. South ..	..	46,859 9 10	46,859 9 10	3,064 7 6	45,325 3 3	48,389 10 9	1,530 0 11	..
Trichinopoly ..	..	38,807 3 0	38,807 3 0	276 9 7	38,907 11 7	39,184 5 2	377 2 2	..
Madura ..	..	89,766 9 2	89,766 9 2	3,343 9 2	88,802 7 11	92,146 1 1	2,379 7 11	..
Tinnevelly — Ramnad ..	..	63,384 13 5	63,384 13 5	876 3 7	63,776 0 11	64,652 4 6	1,267 7 1	..
Working Plans office, Southern Circle.	..	26,056 13 6	26,056 13 6	370 7 3	25,842 3 0	26,212 10 3	155 12 9	..
Total ..	..	4,46,640 7 7	4,46,640 7 7	11,817 11 9	4,44,527 1 4	4,56,344 13 1	9,704 5 6	..
Western Circle.								
Direction, Western Circle ..	..	934 1 2	934 1 2	57 7 6	957 2 5	1,014 9 11	80 8 9	..
North Mangalore ..	..	4,825 8 5	4,825 8 5	..	5,929 6 6	5,929 6 6	1,103 14 1	..
South do. ..	..	72,912 4 5	72,912 4 5	1,597 1 7	73,143 5 7	74,740 7 2	1,828 2 9	..
North Malabar ..	..	91,967 5 2	91,967 5 2	3,966 3 11	89,968 15 8	93,935 3 7	1,967 14 5	..
South do. ..	..	69,292 6 1	69,292 6 1	2,008 0 6	71,076 12 10	73,084 13 4	3,792 7 3	..
The Nilgiris ..	..	1,09,743 4 2	1,09,743 4 2	3,585 0 9	1,09,475 2 10	1,13,060 3 7	3,316 15 5	..
Kollegal ..	..	51,435 13 7	51,435 13 7	818 3 0	51,732 4 10	52,550 7 10	1,114 10 3	..
North Coimbatore ..	..	71,781 14 8	71,781 14 8	2,551 0 1	71,703 11 0	74,254 11 1	2,472 12 5	..
Central do. ..	..	38,416 3 10	38,416 3 10	1,644 12 4	38,164 7 5	39,809 3 9	1,392 15 11	..
South do. ..	..	84,035 2 2	84,035 2 2	2,851 1 4	86,199 8 10	89,050 10 2	5,015 8 0	..
Total ..	..	5,95,343 15 8	5,95,343 15 8	19,078 15 0	5,98,350 13 11	6,17,429 12 11	22,085 13 3	..
Grand Total, Presidency ..	..	20,53,380 13 2	20,53,380 13 2	55,793 6 3	20,51,367 13 9	21,07,161 4 0	53,780 6 10	..

(a) Excludes Rs. 20,868-13-3 belonging to Parlakimedi Maliahs.
(b) Do. do. do.
(c) Excludes Rs. 730-5-9 do.
(d) Do. 20,797-11-7 do.
(e) Do. 21,528-1-4 do.
(f) Do. 659-4-1 do.

Accountant-General's Office,
Madras, 31st August 1916.

R. Srinivasa Ayyar,
Deputy Accountant-General.

Annual Form No. 82.

Forest Department, Madras Presidency.

Revenue received and outstandings on account of revenue during 1915–16.

Districts.	Particulars.	Outstandings at commencement of year. (Rs. A. P.)	Value of sales and other revenue during year. (Rs. A. P.)	Total. (Rs. A. P.)	Amount realized during year. (Rs. A. P.)	Balance due to the department at end of year. (Rs. A. P.)
Northern Circle.						
Direction	Timber and other forest produce.	..	476 5 0	476 5 0	476 5 0	..
Ganjām	Do.	(j) 7,812 1 0	(k) 61,625 14 1	(l) 69,437 15 1	(l) 66,310 8 1	(a) 3,127 7 0
Vizagapatam	Do.	4,684 6 0	44,932 10 6	49,617 0 6	42,384 4 6	(b) 7,232 12 0
Gōdāvari, Upper	Do.	(i) 264 12 0	47,560 7 1	47,825 3 1	47,229 3 11	(c) 595 15 2
Do. Lower	Do.	29,295 0 11	2,56,353 8 6	2,85,648 9 5	2,25,964 5 5	(d) 59,684 4 0
Kistna	Do.	18,634 5 9	79,248 10 11	97,883 0 8	77,479 8 2	(e) 20,403 8 6
Kurnool, East	Do.	65 4 1	70,378 3 3	70,413 7 4	69,143 7 4	(f) 1,300 0 0
Do. South	Do.	11,275 7 11	66,922 14 5	78,198 6 4	76,263 8 4	(g) 1,934 14 0
Do. West	Do.	5,815 0 0	1,46,567 4 0	1,52,382 4 0	1,39,653 13 0	(h) 12,728 7 0
	Total ..	(i) 77,846 5 8	7,74 065 13 9	8,51,912 3 5	7,44,904 15 9	1,07,007 3 8
Central Circle.						
Direction	Timber and other forest produce.	..	193 0 0	193 0 0	193 0 0	..
Bellary	Do.	11,424 13 11	2,25,920 0 6	2,37,344 14 5	1,81,399 0 0 (m) + 34 10 7	55,911 3 10
Anantapur	Do.	1,38,330 4 9	98,642 10 7	2,36,972 15 4	2,10,865 0 0	26,107 15 4
Guntūr	Do.	8,643 10 0	2,23,206 10 8	2,31,850 4 8	2,17,832 0 0	14,018 4 8
Cuddapah, West	Do.	4,797 13 6	68,056 12 4	72,854 9 10	69,247 0 0	3,607 9 10
Do. East	Do.	16,134 15 10	84,480 14 11	1,00,615 14 9	78,742 0 0 (n) + 600 0 0	21,273 14 9
Nellore	Do.	28,555 6 4	2,78,882 12 2	3,07,438 2 6	2,51,843 0 0	55,595 2 6
Chingleput	Do.	7,639 11 10 (o) — 143 0 0	57,113 4 2	64,610 0 0	56,706 0 0	7,904 0 0
Chittoor	Do.	51,990 7 4	79,407 11 4	1,31,398 2 8	1,14,149 0 0	17,249 2 8
	Total ..	2,67,517 3 6 — 143 0 0	11,15,903 12 8	13,83,278 0 2	11,80,976 0 0 + 634 10 7	2,01,667 5 7
Southern Circle.						
Direction	Timber and other forest produce.	..	60,543 0 0	60,543 0 0	60,543 0 0	..
Vellore, North . ..	Do.	38,165 6 4	1,02,536 4 0	1,40,701 10 4	1,16,380 0 0	24,321 10 4
Do. South	Do.	82,054 12 5	1,77,555 3 11	2,59,610 0 4	1,80,230 0 0	79,380 0 4
Arcot, South cum Tanjore ..	Do.	15,400 14 9 * + 319 1 8	1,10,680 15 8	1,26,401 0 1	1,10,305 0 0	16,096 1
Salem, North	Do.	52,789 13 6	77,704 6 1	1,30,494 3 7	1,12,790 0 0 (p) + 773 0 0	16,931 3 7
Do. South	Do.	31,462 11 7	1,79,720 5 4	2,14,183 0 11	1,24,982 0 0	89,201 0 11
Trichinopoly	Do	9,695 14 2 * — 319 1 8 (q) — 1,545 0 0	1,12,428 13 11	1,20,260 10 5	1,04,193 0 0	16,067 10 5
Madura	Do.	27,430 9 8	1,08,306 15 4	1,35,737 9 0	1,06,447 0 0	29,290 9 0
Tinnevelly cum Rāmnad ..	Do.	12,799 9 9	1,25,156 1 11	1,37,955 11 8	1,24,924 0 0	13,031 11 8
	Total ..	2,72,799 12 2 — 1,545 0 0	10,54,632 2 2	13,25,886 14 4	10,40,794 0 0 (p) + 773 0 0	2,84,319 14 4
Western Circle.						
Direction	Timber and other forest produce.	..	111 0 0	111 0 0	111 0 0	..
Mangalore, North	Do.	8,765 10 7	1,20,619 2 5	1,29,384 13 0	1,21,661 0 0	5,445 13 1
Do. South	Do.				‡ 3 0 0	2,274 15 11
Malabar, North	Do.	11,611 1 4	1,16,705 9 8	1,28,316 11 0	1,16,660 0 0 ‡ 872 11 0	10,784 0 0
Do. South	Do.	1,919 2 4	1,60,931 9 3	1,62,850 11 7	1,60,588 0 0 ‡ 307 11 3	1,955 0 4
The Nilgiris	Do.	13,957 1 1	1,05,708 15 1	1,19,666 0 2	1,14,757 0 0	4,909 0 2
Kollegal	Do.	1,241 8 0	92,144 12 0	93,386 4 0	89,979 0 0 ‡ 9 0 0	3,398 4 0
Coimbatore, North	Do.	12,590 2 1	1,36,440 9 3	1,49,030 11 4	1,40,421 0 0	8,609 11 4
Do. Central	Do.	21,181 4 8 †—225 0 0	49,621 3 2	70,577 7 10	60,084 0 0	10,493 7 10
Do. South	Do.	2,397 5 4	2,20,906 4 8	2,23,303 10 0	1,67,539 0 0	55,764 10 0
	Total ..	73,663 3 5 †— 225 0 0	10,03,189 1 6	10,76,627 4 11	9,71,800 0 0 ‡ 1,192 6 3	1,03,634 14 8
Grand Total, Presidency ..		6,91,826 8 9 †—1,913 0 0	39,47,790 14 1	43,37,704 6 10	39,41,075 0 7	6,96,629 6 3

(a) Includes Rs. 2,600 due in 1916-17 and Rs. 318–8–0 coverd by Earnest money deposit.
(b) Includes Rs. 7,187–8–0 due in 1916–17 and Rs. 14 covered by Do.
(c) Includes Rs. 66-10–8 due in 1916-17, Rs. 229–4–0 covered by Earnest money deposit and Rs. 300–0–6 awaiting adjustment by Public Works Department.
(d) Includes Rs. 1,925 due in 1916-17, 1917-18 and 1918-19 and Rs. 44,828–12–0 due in 1916–17 and Rs. 10,572–8–0 covered by Earnest money deposit
(e) Includes Rs. 20,208–12–0 due in 1916-17. (f) Includes Rs. 900 due in 1916-17.
(g) Includes Rs. 1,171–4–0 due in 1916–17 and Rs. 54–14–0 covered by Earnest money deposit.
(h) Includes Rs. 5,255 due in 1916–17 and Rs. 1,310 covered by Do.
(i) The difference is due to the short collection on 350 maddi vasams sold in February 1915 not having been included in the balance due to the Department at the end of the year 1914–15.
(j) Excludes Rs. 100 belonging to Parlakimedi Maliahs.
(k) Do. 10,680 do.
(l) Do. 10,780 do.
(m) Written off in Conservator's sanction order No. 36 of 1915, dated 1st July 1915.
(n) Written off in Board's Proceedings Forest No. 1056, Rout., dated 13th December 1915.
(o) Deducted on account of erroneous demand.
(p) Written off. (q) Demand transferred to the Public Works Department on account of the transfer of padugais.
* Relates to Tanjore range transferred from Trichinopoly to South Arcot.
† Deduction due to erroneous demand and collection in the previous year.
‡ Written off the accounts.

Note.—Out of the total outstandings of Rs. 1,03,634–14–8 the amount actually due on or before 30th June 1916 was Rs. 62,612.

ANNUAL FORM NO. 83.

Forest Department, Madras Presidency.

FINANCIAL results of the year 1915–16.

District.	Timber and other produce removed from the forests by Government agency.		Other revenue.		Formation, protection and improvement of forests.	Total.	
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.
Northern Circle.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Ganjām	(b) 10,685	(c) 16,260	(d) 55,673	(e) 48,231	(f) 31,349	(g) 66,358	(h) 95,840
Vizagapatam	5,019	5,931	37,897	25,785	5,874	42,416	37,590
Gōdāvari, Upper ..	15,722	15,454	31,550	27,328	27,623	47,272	70,405
Do. Lower ..	1,082	6,833	2,24,992	66,171	21,482	2,26,074	94,486
Kistna	387	2,624	77,132	29,231	17,060	77,519	48,915
Kurnool, East ..	11,103	9,718	58,095	31,983	50,268	69,198	91,969
Do. South * ..	3,634	1,214	72,666	45,197	37,498	76,300	83,909
Do. West ..	34,639	35,816	1,05,129	47,777	62,976	1,39,768	1,46,569
Total ..	82,271	93,850	6,62,634	3,21,703	2,54,130	7,44,905	6,69,683 (a) 2,459
Central Circle.							
Bellary	269	229	1,81,323	58,658	33,653	1,81,592	92,540
Anantapur	14	..	2,10,851	34,273	28,681	2,10,865	62,954
Guntūr	168	12	2,17,664	34,549	21 685	2,17,832	56,246
Cuddapah, West ..	122	..	69,125	33,326	20,542	69,247	53,868
Do. East ..	842	47	77,900	61,068	36,033	78,742	97,148
Nellore	5,366	2,070	2,46,477	61,363	30.549	2,51,843	93,982
Chingleput	56	..	56,650	23,416	17,889	56,706	41,305
Chittoor	52	7	1,14,097	40,736	29,307	1,14,149	70,050
Total ..	6,889	2,365	11,74,087	3,47,389	2,18,339	11,80,976	5,68,093 (a) 8,604
Southern Circle.							
Vellore, North ..	641	145	1,16,333	26,806	21,240	1,16,974	48,191
Do. South ..	82,342	9,794	1,11,163	37,479	26,473	1,93,505	73,746
Arcot, South	333	130	1,09,972	32,333	11,631	1,10,305	44,094
Salem, North	33,437	6,190	1,09,981	59,666	36,102	1,43,418	1,01,958
Do. South	12,575	1,575	1,24,094	38,290	19,868	1,36,669	59,733
Trichinopoly	5,761	1,043	1,02,713	36,396	16,812	1,08,474	54,251
Madura	139	16	1,06,386	54,105	56,792	1,06,525	1,10,913
Tinnevelly	965	696	1,23,959	44,378	32,357	1,24,924	77,431
Total ..	1,36,193	19,589	9,04,601	3,29,453	2,21,275	10,40,794	‡ 5,70,317 (a) 9,793
Western Circle.							
Mangalore, North .. Do. South ..	20 860	13,321	1,00,815	51,614	24,373	1,21,675	89,308
Malabar, North ..	95,741	39,970	20,933	17,629	41,018	1,16,674	98,617
Do. South ..	1,44,031	51,526	16,571	10,143	32,162	1,60,602	93,831
The Nilgiris	55,729	99,362	59,042	28,497	32 641	1,14,771	1,60,500
Kollegal	59,332	11,510	30,661	18,493	27,145	89,993	57,148
Coimbatore, North ..	62,331	11,040	78,104	41,035	40,352	1,40,435	92,427
Do. Central ..	1,247	1,308	58,850	29,725	24,819	60,097	55,852
Do. South ..	54,988	35,964	1,12,565	53,384	37,540	1,67,553	1,26,888
Total ..	4,94,259	2,64,001	4,77,541	2,50,520	2,60,050	9,71,800	† 7,74,571 ‡ 4,429
Grand Total, Presidency.	7,19,612	3,79,805	32,18,863	12,49,065	9,53,794	39,38,475	26,07,949

* Refunds.
† Includes refunds.
‡ Expenditure incurred by the Working Plans officer in June 1916 and relating to the Southern Circle.

(a) Refunds and drawbacks.
(b) Excludes Rs. 644-9-11 belonging to Parlakimedi Maliahs.
(c) Do. 682-10-2 do.
(d) Do. 15,617-2-4 do.
(e) Do. 263-15-11 do.
(f) Do. 32,315-7-4 do.
(g) Do. 16,261-12-3 do.
(h) Do. 33,262-1-5 do.

Annual Form No. 84.

Forest Department, Madras Presidency.

Statement of elephants and other live-stock during 1915–16.

District.	On hand at the commencement of the year. Number.	On hand at the commencement of the year. Value.	Number received during the year.	Number disposed of during the year.	On hand at the end of the year. Number.	On hand at the end of the year. Value.	Total expenditure on maintenance during the year.
(1) Elephants.							
Northern Circle.							
		RS.				RS.	RS. A. P.
Ganjām	(b) 3	(c) 5,450	1	1	(b) 3	(c) 4,950	(d) 3,417 15 4
Vizagapatam	1	1,500	..	..	1	1,500	1,126 4 2
Gōdāvari, Upper	2	3,700	..	..	2	3,700	1,731 13 5
Kurnool, West	2	3,100	..	..	2	3,100	1,528 15 4
Total ..	8	13,750	1	1	8	13,250	7,805 0 3
Central Circle—Nil.							
Southern Circle—Nil.							
Western Circle.							
Mangalore, South	8	17,150	..	3	5	13,650	3,142 13 10
Malabar, North	19	46,400	7	5	21	63,300	9,072 7 5
Do. South	23	76,100	6	6	23	81,100	12,781 8 2
The Nilgiris	54	1,37,900	10	22	42	1,31,700	20,465 9 8
Coimbatore, South ..	15	44,100	3	4	14	47,800	8,950 10 1
Total ..	119	3,21,650	26	40	105	3,37,550	54,413 1 2
Grand Total (Elephants), Presidency.	127	3,35,400	27	41	113	3.50,800	62,218 1 5
(2) Other live-stock.							
Northern Circle.							
Kurnool, East	..	..	1	..	1	20	..
Do. South	10	(a) 275	..	4	6	198	443 12 3
Do West	20	1,000	..	..	20	1,000	1,903 9 5
Total ..	30	(a) 1,275	1	4	27	1,218	2,347 5 8
Central Circle.							
Chittoor	4	113	..	1*	3	65	..
Southern Circle—Nil.							
Western Circle.							
Mangalore, North	20	1,000	..	20	..	..	530 12 6
Malabar, North	2	200	..	..	2	80	357 9 7
Do. South	26	1,026	10	3	33	1,556	2,645 9 2
The Nilgiris	11	460	6	6	11	735	1,880 15 7
Coimbatore, South	43	3,421	32	9	66	4,729	5,801 12 2
Total ..	102	6,107	48	38	112	7,100	11,216 11 0
Grand Total (Other Live-stock), Presidency.	136	7,495	49	43	142	8,383	13,564 0 8

* Died.

(a) Last year's figure is incorrect.
(b) Excludes two elephants belonging to Parlakimedi Maliahs.
(c) Do. Rs. 4,500 being the value of the two elephants belonging to Parlakimedi Maliahs.
(d) Do. Rs. 2,168-0-10 being the maintenance charges of two elephants in Parlakimedi Maliahs.

STATEMENT of elephants and other live-stock during 1915–16.

PART II.

District.	Name.	When purchased or otherwise obtained by Government.	Age.	How disposed of.
		ELEPHANTS GONE OFF THE LIST DURING THE YEAR.		
		Northern Circle.		
			YRS.	
Ganjām ..	Kethaki	Purchased in June 1913	17	Transferred to South Coimbatore district.
		Central Circle—Nil.		
		Southern Circle—Nil.		
		Western Circle.		
Mangalore, South.	1. Daisy	Captured on 1st June 1915	20	Died.
	2. Rosy	Do. do.	12	Do.
	3. Hanuman ..	Do. 21st February 1905	26	Transferred to the Nilgiris.
Malabar, North.	1. Leelavati ..	Do. 24th April 1915	20	Died.
	2. Navamony ..	Do. do.	3	Transferred to the Nilgiris.
	3. Dolly	Do. do.	2	
	4. Little Willy ..	Do. 25th May 1915	4	
	5. Sundari ..	Do. do.	4	
Malabar, South.	1. Jupiter	Do. in January 1887	36	Do.
	2. Kalanag ..	Do. 26th ,, 1911	9	Sold.
	3. Supi	Do. 8th March 1915	1	
	4. Lawrence ..	Do. 7th ,, 1913	8	
	5. Bijar	Do. 5th April 1916	1	Died.
	6. Ketaki ..	Transferred from Ganjām	17	Sold.
The Nilgiris.	1. Dostijehan ..	Born in February 1902	14	Transferred to North Malabar.
	2. Countess ..	Captured on 6th June 1910	25	
	3. Indrani ..	Do. 14th May 1912	28	Sold.
	4. Kumaran ..	Do. 11th April 1914	7	
	5. Nala	Do. 30th ,, ,, ...	3	
	6. Narada	Do. 12th May ,, ...	5	
	7. Setu	Do. 6th April ,, ...	6	
	8. Gomati ..	Do. 7th ,, ,, ...	26	
	9. Balaji	Do. 7th ,, ,, ...	5	
	10. Pankajam ..	Do. 15th April 1914	3	
	11. Sawmy	Do. 7th June 1914	4	
	12. Pretty Polly ..	Do. do.	5	
	13. Hyder	Do. 6th March 1915	2	
	14. Amaravati ..	Do. 13th ,, ,, ...	2	
	15. Desaraj	Do. 11th April 1914	4	
	16. Penniar	Do. 5th ,, 1915	7	
	17. Saraswati ..	Do. 6th February 1915	30	Died.
	18. Tambraparni ..	Do. 31st March 1915	40	Shot.
	19. Gowri	Do. 5th April ,, ...	10	Lost.
	10. Female calf ..	Born on 17th August 1915	..	Died.
	21. Male calf ..	Do. 12th August 1915	..	Do.
	22. Mohideenkhan ..	Captured on 3rd January 1896	37	Transferred to South Malabar.
Coimbatore, South.	1. Hilda	Captured in April 1907	28	Transferred to Ganjām.
	2. Helen	Do. 12th April 1906	29	Sold.
	3. Savitri ..	Do. 20th December 1915	35	Died.
	4. Kanishka ..	Do. 3rd September 1914	13	Do.

ANNUAL FORM No. 85.

Forest Department, Madras Presidency.

ABSTRACT showing the value of stores, tools and plant for 1915–16.

District.	Buildings.				Stores.				Totals.				Difference in value	
	On hand at the commencement of the year.		On hand at the end of the year.		On hand at the commencement of the year.		On hand at the end of the year.		On hand at the commencement of the year.		On hand at the end of the year.		In favour of the year.	Against the year.
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.		
Northern Circle.		RS.		RS.		RS.		RS.		RS.		RS.	RS.	RS.
Direction ..	1	1,600	1	1,600	418	2,879	406	2,413	419	4,479	407	4,013	..	466
Ganjām ..	149	56,214	145	55,744	(a)2,547	(b) 7,918	(c) 2,584	(d) 7,004	(a) 2,696	(b)64,132	(c) 2,729	(d)62,748	..	(e)1,384
Vizagapatam ..	* 92	10,952	97	10,793	* 1,430	2,753	1,467	2,871	1,522	13,705	1,564	13,664	..	41
Gōdāvari, Upper.	120	* 29,329	126	30,214	2,401	16,880	3,071	17,007	2,521	46,209	3,197	47,221	1,012	..
Gōdāvari, Lower.	120	48,597	143	49,684	1,916	5,681	1,947	5,150	2,036	54,278	2,090	54,834	556	..
Kistna ..	51	5,825	46	5,660	1,533	7,669	1,354	9,348	1,584	13,494	1,400	15,008	1,514	..
Kurnool, East.	34	42,613	41	46,140	3,009	6,581	3,316	6,114	3,043	49,194	3,357	52,254	3,060	..
Do. South.	82	47,701	62	44,677	3,819	10,221	3,325	8,274	3,901	57,922	3,387	52,951	..	4,971
Do. West.	110	85,448	106	82,550	5,460	13,137	5,231	12,149	5,570	98,585	5,337	94,699	..	3,886
Total ..	*759	*3,28,279	767	3,27,062	* 22,533	73,719	22,701	70,330	23,292	4,01,998	23,468	3,97,392	..	4,606
Central Circle.														
Direction ..	..	..	..	..	243	2,787	257	2,692	243	2,787	257	2,692	..	95
Bellary ..	56	71,422	55	70,027	* 2,280	8,580	2,264	7,957	2,336	80,002	2,319	77,984	..	2,018
Anantapur ..	38	52,687	36	53,683	2,000	6,300	2,668	7,330	2,038	58,987	2,704	61,013	2,026	..
Guntūr ..	32	18,369	31	11,773	2,133	10,321	2,013	9,147	2,165	28,690	2,044	20,920	..	7,770
Cuddapah, West.	37	15,407	38	10,230	2,219	7,087	1,755	5,008	2,256	22,494	1,793	15,238	..	7,256
Cuddapah, East.	89	25,248	89	28,772	1,288	5,576	1,377	6,346	1,377	30,824	1,466	35,118	4,294	..
Nellore ..	43	33,160	49	34,276	44,795	38,817	46,057	35,266	44,838	71,977	46,106	69,542	..	2,435
Chingleput ..	33	10,934	29	11,310	2,474	12,040	1,720	4,302	2,507	22,974	1,749	15,612	..	7,362
Chittoor ..	52	18,198	47	23,247	2,572	5,944	2,733	5,151	2,624	24,142	2,780	28,398	4,256	..
Total ..	380	2,45,425	374	2,43,318	60,004	97,452	60,844	83,199	60,384	3,42,877	61,218	3,26,517	..	16,360
Southern Circle.														
Direction ..	..	..	..	..	178	2,715	177	2,549	178	2,715	177	2,549	..	166
North Vellore.	* 46	*20,898	49	22,853	* 1,835	* 5,933	1,785	5,036	1,881	26,831	1,834	27,889	1,058	..
South do.	47	*25,183	48	29,692	* 3,396	* 9,311	3,107	9,218	3,443	34,494	3,155	38,910	4,416	..
South Arcot ..	39	21,132	43	24,685	1,431	3,143	1,723	3,618	1,470	24,275	1,766	28,303	4,028	..
North Salem ..	88	43,286	115	97,786	2,397	6,400	2,382	8,028	2,485	49,686	2,497	1,05,814	56,128	..
South do. ..	56	32,273	61	44,279	2,618	6,870	3,009	7,356	2,674	39,143	3,070	51,635	12,492	..
Trichinopoly ..	30	20,782	25	15,342	3,054	8,722	3,217	9,253	3,084	29,504	3,242	24,595	..	4,909
Madura ..	111	73,697	118	82,574	3,372	6,309	3,198	5,738	3,483	80,006	3,316	88,312	8,306	..
Tinnevelly ..	83	47,870	82	55,784	1,907	4,703	1,906	5,159	1,990	52,573	1,988	60,943	8,370	..
Vernacular Training School.	..	..	..	..	499	1,677	552	1,608	499	1,677	552	1,608	..	69
Special working plans office.	..	..	..	..	185	1,528	197	1,600	185	1,528	197	1,600	72	..
Total ..	500	2,85,121	541	3,72,995	20,872	57,311	21,253	59,163	21,372	3,42,432	21,794	4,32,158	89,726	..
Western Circle.														
Direction ..	1	74	1	70	380	4,987	385	5,135	381	5,061	386	5,205	144	..
Mangalore, North.	25	17,136	32	18,997	1,012	3,740	962	3,708	1,037	20,876	994	22,705	1,829	..
Do. South.	28	7,521	24	8,052	1,041	3,532	1,112	4,316	1,069	11,053	1,136	12,368	1,315	..
Malabar, North	72	39,270	74	40,960	9,832	6,856	4,548	6,420	9,904	46,126	4,622	47,380	1,254	..
Do. South.	46	39,907	51	40,931	1,640	5,713	1,645	6,095	1,686	45,620	1,696	47,026	1,406	..
The Nilgiris ..	67	39,195	68	39,826	1,483	13,611	1,902	14,299	1,550	52,806	1,970	54,125	1,319	..
Kollegal ..	35	28,733	34	25,356	4,833	6,618	1,970	6,230	4,868	35,351	2,004	31,586	..	3,765
Coimbatore, North.	71	57,533	78	65,819	3,429	11,213	3,394	12,112	3,500	68,746	3,472	77,931	9,185	..
Do. Central	55	24,036	61	27,910	7,665	8,404	7,867	8,527	7,720	32,440	7,928	36,437	3,997	..
Do. South.	66	32,527	69	34,856	3,826	11,630	2,523	9,992	3,892	44,157	2,592	44,848	691	..
Vernacular Training School.	..	..	..	..	328	1,267	332	1,108	328	1,267	332	1,108	..	159
Total ..	466	2,85,932	492	3,02,777	35,469	77,571	26,640	77,942	35,935	3,63,503	27,132	3,80,719	17,216	..
Grand total ..	2,105	11,44,757	2,174	12,46,152	138,878	3,06,053	131,438	2,90,634	140,983	14,50,810	133,612	15,36,786	85,976	..

* Correct figures furnished by the District Forest Officers.

(a) Excludes 558 articles belonging to Parlakimedi Maliahs.
(b) Do. Rs. 2,253-5-0 being value of 558 articles belonging to Parlakimedi Maliahs.
(c) Do. 654 articles belonging to Parlakimedi Maliahs.
(d) Do. Rs. 1,291-12-6 being value of 654 articles belonging to Parlakimedi Maliahs.
(e) Do. Rs. 961-8-6 against the year on account of Parlakimedi Maliahs.

GOVERNMENT OF MADRAS

REVENUE DEPARTMENT

READ—the following paper :—

Proceedings of the Board of Revenue (Land Revenue), Forest No. 156, dated 14th November 1916.

The Hon'ble Mr. M. E. COUCHMAN, I.C.S.,
Commissioner of Land Revenue and Forests.

The Board submits to Government its progress report of Forest administration in the Madras Presidency for the year ending 30th June 1916.

2. The reports of the Conservators of Forests have been consolidated under each of the various heads with reference to the orders of Government contained in G.O. No. 2183, Revenue, dated 23rd September 1916. The attention of Conservators will be drawn to the table of contents appended to the letter from the Government of India, Revenue and Agriculture (Forest), communicated with Board's Proceedings, Forest No. 175, dated 29th August 1904, and they will be requested to follow the headings closely in drafting their future annual reports, so that there may be no difficulty in collating the matter under each head in the manner now ordered by Government.

3. *Alteration in area.*—Some twenty square miles, mostly in Central Coimbatore (10 square miles) and Anantapur (8 square miles), were constituted reserved forests during the year. There were also the following changes :—

(i) a decrease of 3 square miles caused by the rectification of boundaries in *Kistna* ;

(ii) a decrease of 42 square miles due to the disafforestation of areas which were abandoned in pursuance of the policy of giving up small scattered forests : 10 square miles in *Ganjām*, 8 square miles in *Nellore*, 7 square miles in *Chittoor*, 6 square miles in *North Coimbatore*, 4 square miles in each of the districts of *Anantapur* and *Cuddapah West*, 2 square miles in *South Arcot* and 1 square mile, in the aggregate, in *Chingleput* and *Madura* ;

(iii) a loss in *Trichinopoly* of 5 square miles of land which was transferred to the Public Works Department ;

(iv) an apparent increase of 2 square miles due to excess found on resurvey of kancha areas in *Nellore* ; and

(v) a similar excess of 2 square miles discovered during forest settlement in *Trichinopoly*. The net result of these changes was a decrease of 26 square miles in the total area of reserved forests, which stood at 18,849 square miles at the close of the year. The area of reserved lands also fell from 761 to 734 square miles. About 11 square miles were newly notified under section 4 of the Forest Act. Twenty square miles were notified under section 16.

4. *Forest Settlement.*—As in the previous years, forest settlement work was carried out by Revenue Divisional Officers. Out of a total area of 567 square miles which awaited settlement at the close of the year, the Northern Circle alone accounts for 492 square miles. Four large blocks, covering an area of about 483 square miles, were awaiting settlement in the districts of *Ganjām* and *Gōdāvari*. The settlement papers in respect of two large blocks, viz., Chokkapad (64·69 square miles) and Pedamidisileru (96·48 square miles) have been received in the Board's office and are under revision and still form the subject of correspondence with the local officers. The Collector of *Gōdāvari* will be requested to expedite the submission of the section 16 notification of the Nugur block (area 246·61 square miles), the details of the reservation of which are reported to be still under discussion. He has already been instructed to proceed with the reservation of the Coringa Extension block (75 square miles) in view of the fact that the Coringa forest appeal, which was made to the Privy Council, has ended in favour of Government. As to the Southern Circle, the Board has submitted to Government the report of Mr. E. A. Davis, I.C.S., regarding the reservation of about 50 square miles in the Pachamalais and Kollimalais, in the Attur taluk, South

Salem division, and has recommended the appointment of a special Forest Settlement officer for the reservation of the unreserves referred to. Forest Settlement work is practically complete in the Central and Western Circles.

5. *Demarcation.*—The total length of boundaries at the close of the year was 35,605 miles (or 1,385 miles less than in the previous year), of which 1,882 miles do not require artificial demarcation. The total length of artificially marked boundaries at the close of the year was 33,185 miles, of which 118 miles were demarcated for the first time during the year, against 246 miles in the previous year. Five hundred and thirty-eight miles remained still to be demarcated at the close of the year, principally in the districts of *Kollegal* and *Madura*, as in the previous year. The length of old boundaries repaired during the year was 17,644 miles, against 19,435 miles in the previous year; of this length 11,438 miles were cleared by subordinates free of cost against 12,400 miles in 1914–15. The average cost per mile of fresh demarcation rose from Rs. 33–10–6 to Rs. 36–5–3 but the cost of repairs fell from Rs. 3–6–3 to Rs. 2–11–7. The cost of fresh demarcation and repairs increased in the Western Circle and that of repairs only in the Northern Circle. These variations have not been explained notwithstanding the instructions on the point conveyed in paragraph 4 of Board's Proceedings Forest No. 161, dated 17th November 1915. The Board hopes that the omission will not recur. The Special Forest establishment, appointed for the verification and permanent demarcation of forest reserves in the Nilgiri district, started work in October 1915 and verified the boundaries of 49 reserved forests in Ootacamund taluk, of which 39 miles have been demarcated. In G.O. No. 2038, Revenue, dated 6th September 1916, Government ordered the continuance of this work to ensure the preservation from damage and encroachment of the forests, most of which contain valuable sholas. It is reported that eight miles of the proposed new boundary between the Nilgiris and Coimbatore were demarcated and about five miles roughly aligned. The report called for in paragraph 3 of G.O. No. 95, Revenue, dated 15th January 1916, was submitted to Government in Board's Forest Reference No. 2982–10–19, dated 14th September 1916. The Board has recommended that the new boundary, as settled in 1912, should be adhered to and that its demarcation should be continued.

6. *Surveys.*—The survey of India finally surveyed on the two inches scale certain reserves in *East Cuddapah*, *Chingleput* and *Chittoor*, aggregating an area of about 30 square miles. The party commenced work on the four inches scale in *Nellore* in April last in accordance with G.O. No. 479, Revenue, dated 1st March 1916, and the work is reported to be progressing. The Special Forest Map Officer, Mr. Descubes, completed the preparation of the maps of all Forest divisions and his services were terminated on 31st March 1916. It is reported that some of these maps are being made ready for publication in the Forest Map office at Dehra Dun. A surveyor deputed by the Madras Survey Department rectified the errors in the survey of five of the estates in the Anamalais; he was relieved on 10th June owing to the outbreak of the monsoon. The Collector of Coimbatore has since applied for sanction for his employment for a further period of six months during the current year to complete the survey of 12 estates still remaining to be surveyed and the proposal has been referred back to him for further details. Miscellaneous work, such as survey of coupes, alignment of roads and fire lines, verification of boundaries and preparation of coupe and working-plan maps, was done by departmental surveyors.

MANAGEMENT OF FORESTS.

(1) *Regulation and management.*

7. *Working-plans.*—In its proposals for the reorganisation of the controlling staff of the department which were submitted to Government during the year, the Board has provided for five Imperial and five Provincial officers, whose duty is to be the preparation of working-plans. The successful working of the forests depends in a large measure on the care and accuracy of the enumeration, estimates and forecasts contained in working-plans, and District Forest Officers are seldom able to devote to this branch of work that continuous and close personal attention which is essential. During the year, working-plans were sanctioned for 441 square miles and plans were under preparation for 2,527 square miles. The working plan for the sandal forests of

the Javadis, prepared by Mr. C. C. Wilson, Special Working-Plans Officer, was sanctioned during the year and another important working plan for the fuel forests of the *Madura* district prepared by the same officer was sanctioned after its close. The Hosur sandalwood working plan, also prepared by Mr. Wilson, is now under the Board's consideration. As in the case of his report on the sandalwood of the Chitteris and the Javadis, the detailed enumeration of the Hosur sandalwood forests shows that the value of the sandal forests has been underestimated and that, given proper management and attention, they should be capable of yielding a much larger revenue. At the end of the year, Mr. Wilson was transferred to the Western Circle and has since prepared a reconnaisance report for the Tekkadi leased forest. In the Northern Circle, an interim working plan was prepared for the forest of Goomsūr and Pondakhol by Mr. Minchin, District Forest Officer, and sanctioned by the Board. Mr. Bourne is preparing the final working plan for the Nilambur teak plantations. Instructions were issued for the preparation of a working plan for the Sandur leased forests, Bellary district. The work is to be entrusted to M.R.Ry. E. V. Padmanabha Pillai, Extra Assistant Conservator of Forests.

8. There are still about 5,846 square miles of forest for which no working plans have been prepared, and of the existing working-plans there are many which require revision.

(2) *Communications and buildings.*

9. The following statement compares, with the figures of the previous year, the expenditure during the year on the construction and maintenance of roads and bridges and buildings in the four circles :—

—	Roads and bridges.		Buildings.	
	1914-15.	1915-16.	1914-15.	1915-16.
	R .	RS.	RS.	RS.
Northern Circle	32,333	31,462	31,216	26,649
Central ,, ...	15,670	12,181	33,510	22,461
Southern ,, ...	29,913	20,368	43,577	38,080
Western ,, ...	47,303	43,222	41,466	44,795
Total ..	1,25,219	1,08,233	1,49,769	1,31,985

Owing to the war expenditure was curtailed, and the total expenditure on both communications and buildings shows a decrease. The improvement of forest communications is, however, receiving careful attention, and during the year 441 miles of new cart roads, etc., were added. It is observed that under the head of roads and bridges a greater amount was spent on repairs (Rs. 64,535) than on new works (Rs. 43,326), and that under buildings the expenditure on new works (Rs. 80,720) exceeded that on repairs (Rs. 51,265). During the year the Board has approved schemes for the construction of roads and buildings which the Conservators of Forests have prepared in accordance with Mr. Beadon Bryant's recommendations. The temporary Forest Engineer (Mr. F. J. Marshall) has been placed under the control of the Forest Commissioner since the end of March. The services of the other Forest Engineer (Mr. A. J. Bright) were dispensed with, as he failed to give satisfaction. The most important works executed during the year under report were the alignment of 14 miles of the Alangayam-Komattiyar road in the *South Vellore* Division and the preparation of an estimate sanctioned in G.O. No. 975, Revenue, dated 1st May 1916, for Rs. 1,11,400 for its construction. The work is in progress. Estimates were prepared for the new Mount Stuart Ghat road.

The tramway in the Tekkadi leased forests was extended; it was worked at a profit of Rs. 1,441, against Rs. 2,416 in the previous year. With a decrease in the outturn of work the working charges showed an increase, which is attributed to the purchase of fresh materials and a temporary stoppage of work necessitated by an outbreak of anthrax. In *Nellore*, the laying of tram lines for fuel transport went on as usual. At Sriharikota and in the Coast range 1,518 tons and 927 tons of fuel were transported, an increase, in the former case, of 909 tons and a decrease, in the latter case, of 5,381 tons over the figures of last year. The tram lines and trucks in the district were lent to contractors

10. *Miscellaneous works.*—The expenditure under this head also decreased from Rs. 17,767 to Rs. 12,279. The chief works consisted, as usual, in fencing compounds and reserves and constructing and repairing tanks and wells. The telephone service in *South Coimbatore* is reported to be, on the whole, working satisfactorily.

(3) *Protection of forests.*

11. The following table compares the forest offences reported during the year with those of 1914–15 and with the average of the three years ending with 1914–15 :—

—	Injury to forests by fire.		Unauthorized felling and removal of forest produce.		Unauthorized grazing.		Other offences.		Total.		Average for three years ending 1914–15.
	1914–15.	1915–16.	1914–15.	1915–16.	1914–15.	1915–16.	1914–15.	1915–16.	1914–15.	1915–16.	
A. Cases taken to court.	27	92	4,069	5,033	2,021	2,052	389	341	6,506	7,518	6,088
B. Cases compounded.	62	44	15,864	14,401	7,112	5,634	1,087	661	24,125	20,740	23,486
C. Cases undetected.	788	1,609	716	504	362	505	44	9	1,910	2,627	1,829
Total ..	877	1,745	20,649	19,938	9,495	8,191	1,520	1,011	32,541	30,885	31,403

It will be seen that the total number of offences reported is 1,656 less than in the preceding year and 518 less than the average for the three preceding years. Compared with the figures of the previous year, offences appreciably decreased in the districts of *Nellore*, *Chingleput* and *Trichinopoly*. The number of offences in the Southern Circle was 44 per cent and in the Central Circle 32 per cent of the total. Offences were most numerous in *Guntūr*, *Nellore* and in the Southern Circle, in which as noted in paragraph 10 of the last year's administration report, most of the reserved forests are scattered, of comparatively small area, and contiguous to villages and cultivation. It is hoped that some diminution of forest crime will result from the recommendations of the Forest Committee, to which effect is being given as fast as possible. In particular, the introduction of the forest village system for the more valuable forests, and the creation of village panchayats to manage minor forests in which grazing is the chief consideration should give the villagers an interest in the protection of the forests, and make it possible to reduce to a minimum contact between the subordinate Forest officials and the villagers.

12. The decrease in the number of offences reported occurred under all heads except "injury to forests by fire." The increase amounting to nearly 100 per cent in the number of offences of this class occurred in the districts of *Anantapur*, *Chittoor*, *South Vellore*, *North* and *South Salem*, *Madura*, *North* and *Central Coimbatore* ; incendiarism and, to some extent, the exceptional dryness of the season in the last named two districts are the reported causes of these fires. The number of cases of illicit felling and illicit grazing decreased by 3·4 per cent and 13 per cent respectively. The decrease under the former head was most marked in the Central Circle and was shared by all districts comprised therein except *Bellary* and *Anantapur* ; the decrease of illicit grazing occurred in the Southern Circle, notably in *South Arcot*, where the number of cases fell by 483. Of the fires 92 per cent were undetected. Detection of offences generally was poor in the districts of *Kurnool*, *South* and *West*, *Anantapur*, *Nellore*, *Chittoor*, the two *Vellores*, the two *Salems*, *Madura* and *North Coimbatore*. The Conservator, Western Circle, reports that the undetected offences of his circle are almost entirely cases of incendiarism and adds, by way of explanation, that whereas a number of undetected petty offences of other kinds are left unreported, every fire is reported, however trivial.

13. The percentage of all reported cases taken to court, compounded and undetected, was 24·34, 67·15 and 8·51, against 19·99, 74·14 and 5·87 in the previous year.

14. The total number of cases disposed of by magistrates rose from 6,737 to 8,061 and the percentage of acquittals to cases prosecuted fell from 7·9 to 7·2. The Collector of Kurnool has drawn attention to the need for a better knowledge of law and procedure on the part of rangers and deputy rangers. Attention is being paid

to this at the Madras Forest College. Students are also taken to watch the hearing of forest cases. An improvement may, therefore, be expected in this matter in the future.

15. The rules laid down by Government in G.Os. No. 1990, Revenue, dated 13th June 1910, and No. 3958, Revenue, dated 14th December 1910, for the guidance of Forest officers in compounding offences of illicit grazing worked satisfactorily in all districts.

16. The closure of forests to grazing as a punishment for systematic offences on a large scale was not considered necessary in any district, except *Vizagapatam*, *Gōdāvari*, *Chittoor* and *Tinnevelly*.

17. Rewards amounting to Rs. 903 were granted to informers and forest subordinates, against Rs. 2,023 in the previous year. It is reported that a few rewards were given for assistance rendered in the detection of forest offences in the Northern Circle, but the amount has not been specified.

18. *Fire protection.*—The system of fire protection was the same as in the pervious year, viz., the clearing of exterior and interior fire lines and patrol by watchers. The system, adopted in the South Kurnool Division in the previous years, of having boundary and fire lines cleared through the agency of purchasers of material thereon was extended in the same division. In areas over which special protection was attempted, the percentage of failure increased from 6·60 to 17 per cent, 1,150 out of a total of 6,763 square miles so dealt with having been burnt. The prolonged hot weather and the failure of the early rains produced unfavourable conditions; but many of the fires are attributed to deliberate incendiarism. The cost per square mile successfully protected was Rs. 20–12–7, against Rs. 23–9–8 in the previous year.

In *Upper Gōdāvari* the system of payment in lump for line clearing combined with the grant of proportionate rewards for successful protection was continued, but a large area was burnt by incendiaries. The matter is reported to be engaging the personal attention of the Collector. In *Lower Gōdāvari*, the services of hillmen were used, with the satisfactory result that the area protected was 97 per cent of the area taken up. In *South Coimbatore* also, the services of hillmen were enlisted in fire protection operation but the result is not reported. In *Kurnool East*, the Chenchus are reported to have set fire to the forests near Nagaluti and Pecheruvu in revenge for having been stopped from collecting fees from pilgrims to Sriselam, but the Chenchus of *West Kurnool* Division are reported to have worked hard to put out a fire which burnt 32,000 acres in the specially protected block of Nandyal range and is believed to have been the work of some timber thieves. In B.P. Forest No. 109, Mis., dated 3rd March 1916, the Board has recommended to Government the continuance of the system of granting rewards to Chenchus for fire protection, subject to the Conservator's suggestions for its improvement.

In addition to the area specially protected, the ordinary staff attempted to protect 9,309 square miles against 9,336 square miles in the previous year; of this area 8,607 square miles were successfully protected.

19. Fires were heaviest in the districts of *Upper Gōdāvari*, *Kurnool East* and *South*, *Bellary*, *Cuddapah East* and *North Coimbatore*. The area burnt from intention or malice was twice as large at in the previous year, and increased in *Ganjām*, *Kurnool East*, *Cuddapah East* and *West*, *Chittoor*, *South Vellore* and the *Nilgiris*.

20. The suggestion made by Mr. Cox, late Acting Conservator of Forests, Central Circle, and referred to in the previous year's report, that special annual reports on the subject of fire conservancy accompanied by maps should be submitted for each division in August and reviewed, was not supported by the other Conservators of Forests and was dropped by the Board, on the ground that with the existing staff the proposal was impracticable.

21. *Protection from cattle.*—3,512 square miles, or 18 per cent of the total area of reserved forests and reserved lands, were closed to cattle, sheep and goats throughout the year, and 178 square miles for part of the year; the corresponding figures for the previous year were 3,380 and 102 square miles. 204 square miles of reserved forests and reserved lands were open to goats, against 218 square miles open last year. From the close of 1915–16, goats have been excluded from all reserves except in portions of three reserves of the *Chingleput* district in the Central Circle. The area closed to

goats alone was 15,030 square miles and that closed to goats and sheep was over 659 square miles, the figures for the previous year being 15,292 and 647 square miles, respectively. A grazing scheme for the Guntūr district sanctioned in G.O. No. 1675, Revenue, dated 17th July 1915, was brought into force in the district during the year under report. In the *Nellore* district, the *Kancha* system of leasing out the grazing in the forests has made good progress. A Special Deputy Collector was appointed for six months to accelerate the movement. The Conservator reports that, besides protecting the forests in which grazing is allowed against fire, the lessee often undertakes the protection of closed areas as well. The Collector reports that revenue has gone up, that, with the withdrawal of the forest subordinates, friction has decreased, offences have considerably declined and informal panchayats are being formed.

22. An important step was taken during the year in the direction of associating the people with the Forest Department by the sanction given in G.O. No. 298, dated 10th February 1916, to the Forest village system. This system recognises that the ryots of those villages, which have contributed land for the formation of forest reserves, should receive preferential treatment as regards grazing and the grant of other privileges in such portions of the reserves as have been classed as "open." In return for this, they will be expected to take an active part in protecting the forests from fire and other damage.

23. The total number of animals licensed to graze on payment fell from 3,898,811 to 3,212,606. The decrease occurred under all the circles. In the Central Circle, it occurred in all districts and is attributed generally, subject to other causes peculiar to each district, to the transfer of reserves to panchayats for management. The Conservator, Southern Circle, gives this year also an interesting table showing the grazing incidence in each district based on the actuals of grazing permits, and states that forests cannot be expected to improve until the incidence is much reduced.

24. The number of cattle impounded was 175,903, against 208,393 in the previous year and 191,671, the average for three years ending 1915–16.

25. *Protection against injuries from natural causes.*—Spike disease continued its attacks upon sandal in *North Salem*, *Trichinopoly*, *Kollegal* and *North Coimbatore*, and is reported to be spreading gradually. The measures taken last year to check the spread of the disease in *Kollegal* proved a failure. Mr. T. N. Hearsey, Extra Assistant Conservator of Forests, was employed on special duty for the investigation of the disease in the sandal forests in *Salem*, and is reported to have made some interesting discoveries. No progress was made in the eradication of lantana, which was begun last year in *Tinnevelly*, but attempts are being made to combat this pest in several districts in the Western Circle. Teak defoliators continued to do much damage to the teak plantations in *South Malabar*. The identification of the jacids on teak leaves referred to in the Northern Circle report of the previous year is engaging the attention of the Forest Botanist, Dehra Dun; the insect continued to damage teak and *Anogeissus latifolia* in Nugur. Sambhur as usual continued to do a good deal of damage in *Tinnevelly*.

(4) *Sylviculture.*

26. *Natural reproduction.*—Except in the Western Circle, which suffered severely from fires, the year was on the whole favourable for natural reproduction. It is satisfactory to find that sandal is more widely distributed than was formerly supposed and that in several areas it is spreading. Reproduction of *Pterocarpus santalinus* from coppice in *Cuddapah* and *Chittoor* was satisfactory. The flowering of the bamboo is spreading over large areas in several forest divisions in the Western Circle. The question of how to take advantage of the bamboo flowering in *South Coimbatore* "with a view to getting in a larger proportion of teak and other valuable timber trees" was under the consideration of the Working-plans officer after the close of the year. Natural regeneration of teak was not successful in the Western Circle owing to absence of the complete light which experience shows to be essential to teak if it is to reach the pole stage.

27. In accordance with the advice given by the Inspector-General of Forests during his tour in 1913, expenditure on artificial reproduction has been greatly reduced. In the year under report, it amounted to Rs. 18,973 against Rs. 25,572 in the previous year. Of this amount, Rs. 15,540 were spent on teak plantations in *West Kurnool* during the year, the principal object of this scheme being to provide work for the chentsus and divert them from crime.

28. *Operations for the improvement of the growing stock.*—The operations undertaken during the year consisted, as in the previous years, of improvement fellings, thinnings, fencing, creeper cutting, the removal of inferior species, dead and dying trees, parasites and noxious growth and weeds, and the building of stone walls in a few places, to protect the forests from trespass. Systematic and useful work in the removal of creeper growth over sandal areas was done in the Javadis and Yelagiris of *South Vellore* division and in the Chitteris of *South Salem.*

Experiments.—Successful experimental cultivation was carried out in the following districts :—

Sandal in *Kurnool South* and *Kistna*, *Eucalyptus globulus* in *East Cuddapah* and *Chittoor*, *Swietenia Mahogani* in *Chittoor*, *Pterocarpus santalinus* in *North Vellore*, and teak in the *Nilgiris* and *South Coimbatore.* The experiment of girdling sandalwood started in *South Vellore* for the purpose of increasing the heartwood is reported to be still in an imperfect stage. Mr. Nelson's bamboo pulp scheme in Malabar is, it is understood, under the further consideration of Government. Mr. T. Clear, District Forest Officer, *South Kurnool*, submitted a report during the year on a tour which he recently made in Northern India for the purpose of investigating the lac industry and Indian vegetable dyes.

(5) *Exploitation.*

29. *System of management—Major produce.*—The various methods of exploitation of major produce were, as in previous years, clear or regeneration fellings, thinnings, selection fellings and improvement fellings and coppice fellings. Clear or regeneration fellings were carried out mostly in *Ganjām*, *Gōdāvari Lower*, *Kistna*, *South Kurnool*, *South Arcot*, *Tinnevelly* and *South Malabar.* Selection fellings were, as usual, made in timber coupes or where it was found neceseary to eliminate dead and unsound trees. In the Southern Circle, bamboos were worked under this system. Improvement and coppice fellings were undertaken principally in fuel coupes and in a few timber coupes and bamboo areas. In the Southern Circle most of the areas in which improvement fellings were undertaken were sandal areas. Unregulated fellings under the permit system were made in Rampa, Lower Gōdāvari, and in some unreserves. In reserves this antiquated system was chiefly confined to the extraction of brushwood and *Avicennia officinalis* (mada) poles by the Public Works Department for river conservancy work in the Coringa reserve in *Lower Gōdāvari*, of selected and marked timber trees for domestic requirements in one range in *Madura*, of dead and wind-blown trees from certain reserves in the *Mangalore divisions*, of small timber and fuel in the *Nilgiris*, of some rosewood trees for special supply in *North Malabar*, and some *Xylia* trees from a reserve in *South Malabar.*

30. *Minor produce and fodder grass.*—Minor produce was generally leased out. Bamboos were removed on permits in six divisions in the Western Circle to meet local demand and for floating timber. The manufacture of catechu in *North Mangalore* and collection of miscellaneous produce in *Kollegal*, *Kurnool East and West*, in parts of *Nellore*, the *Nilgiris* and *South Coimbatore*, were carried out by departmental agency. Permits were issued in several districts for the removal of manure leaves, stones, gravel, etc. In the *Kurnools* Chentsu agency was employed for the collection of minor produce. In *Ganjām*, the enjoyment of fruit trees was generally left to the use of the Khonds. In *Vizagapatam* seigniorage was collected at the weekly markets from purchasers of produce collected by hillmen. Fodder grass was removed on permit in *Madura*, *Coimbatore*, and in parts of the *Nilgiris* and *South Malabar* and leased in *Gōdāvari Lower* and *Kistna.* In *Tinnevelly* grass was as usual included in minor produce leases. Ryots were allowed to cut and remove grass from reserves in all districts except in *Chingleput* in the Central Circle, where there was no demand, and in *North* and *South Vellore* and *South Arcot* in the Southern Circle. Free removal of thatching grass was allowed in the two *Mangalore* divisions and parts of the *Nilgiris.* In *Bellary*, 450 tons of hay were cut, on contract, against 240 tons in the previous year. The Military Department held leases of areas in *Bellary*, *Anantapur* and *East Cuddapah* and *Vellore North* at Rs. 2 per ton of hay removed.

31. *Hay making.*—No hay making operations were undertaken by the department during the year.

32. *Grazing.*—The revenue from grazing and fodder grass decreased from Rs. 6,96,334 to Rs. 6,86,571. There was an increase of Rs. 19,623 in the Central Circle, but it was counterbalanced by decreases in other circles. The increase in the Central Circle occurred chiefly in *Guntūr*, which owing to the enhancement of the

grazing fees brought in revenue exceeding by about Rs. 20,000 that of the previous year, and in *Nellore*, where the kancha system of grazing made good progress. The largely increased revenue realized in these two districts was however counterbalanced by decreases in other districts in the circle.

The decreased grazing revenue explained above is the inevitable result of the disafforestation of large areas of class VI reserves.

33. *Agency of exploitation.*—The subjoined table compares the outturn through all the agencies of timber, fuel, bamboos and minor produce with that of the preceding year :—

Agency of exploitation. (1)		Timber including sandalwood in cubic feet. 1914-15. (2)	Timber including sandalwood in cubic feet. 1915-16. (3)	Fuel in cubic feet. 1914-15. (4)	Fuel in cubic feet. 1915-16. (5)
By Government Agency.	Northern Circle	250,028	271,447	868,935	648,750
	Central ,, ...	11,071	19,816	36,063	24,321
	Southern ,, ...	19,338	17,281	62,294	70,432
	Western ,, ...	437,121	308,807	640,149	621,608
	Total ..	717,558	617,351	1,607,441	1,365,111
By purchasers ..	Northern Circle	1,288,226	906,369	4,459,851	4,074,398
	Central ,, ...	1,065,163	930,733	6,584,517	6,388,326
	Southern ,, ...	920,866	798,338	4,777,552	4,239,113
	Western ,, ...	468,886	379,143	3,937,306	3,218,887
	Total ..	3,743,141	3,014,583	19,759,226	17,920,724
By right holders.	Northern Circle	184,136	167,198	582,195	582,195
	Central ,, ...	..	..	..	..
	Southern ,, ...	..	..	..	..
	Western ,, ...	36,175	15,450	..	..
	Total ..	220,311	182,648	582,195	582,195
By free grantees.	Northern Circle	86,853	47,520	..	3,462
	Central ,, ...	38,543	47,728	..	..
	Southern ,, ...	90,493	18,824	3,984	2,879
	Western ,, ...	3,761	4,385	340	580
	Total ..	219,650	118,457	4,324	6,921
	Grand total ..	4,900,660	3,933,039	21,953,186	19,874,951

Agency of exploitation.		Bamboos—value in rupees. 1914-15. (6)	Bamboos—value in rupees. 1915-16. (7)	Minor produce including grass and grazing—value in rupees. 1914-15. (8)	Minor produce including grass and grazing—value in rupees. 1915-16. (9)
By Government agency.	Northern Circle	6,550	4,523	12,844	8,314
	Central ,, ...	226	13	14,701	8,487
	Southern ,, ...	201	289	531	533
	Western ,, ...	5,373	5,772	24,151	20,518
	Total ..	12,350	10,597	52,227	37,852
By purchasers ..	Northern Circle	93,180	1,41,664	2,13,695	2,74,819
	Central ,, ...	14,945	17,301	6,31,218	7,63,001
	Southern ,, ...	1,01,789	1,10,692	3,82,215	3,76,879
	Western ,, ...	22,114	35,841	1,47,014	1,37,368
	Total ..	2,32,028	3,05,498	13,74,142	15,52,067
By right holders.	Northern Circle	552	407	24,649	23,869
	Central ,, ...	..	167	151	138
	Southern ,, ...	..	..	2,105	1,115
	Western ,, ...	..	..	780	..
	Total ..	552	574	27,685	25,122
By free grantees.	Northern Circle	671	278	2,836	119
	Central ,, ...	246	..	1,320	313
	Southern ,, ...	303	454	5,267	5,819
	Western ,, ...	67	88	270	915
	Total ..	1,287	820	9,693	7,166
	Grand total ..	2,46,217	3,17,489	14,63,747	16,22,207

34. The quantity of timber removed by departmental agency decreased, mainly in the Western Circle, and the decrease was due in *South Malabar* to the smaller yields from the thinnings made in the plantations, and in *South Coimbatore* to the cessation of felling in the Tekkadi leased forests, pending the transport of a large stock lying in the forests. The quantity removed by purchasers was in all the circles less than in the previous year. In the Northern Circle this decrease was due to lack of demand, in the Central Circle to smaller removals from darkhast lands, in all districts of the Southern Circle, except *North Salem* and *Madura*, to a fall in the collection of tree value from lands assigned on darkhast, and in the Western Circle partly to a general fall in darkhast applications for land and in removals from unreserved lands; a lack of demand in *North Malabar* and a reduced outturn in *South Coimbatore* are also reported.

The quantity of fuel extracted both by departmental and private agencies decreased in all the circles except in the Southern, where the quantity removed by departmental agency slightly increased. The decrease in the amount of fuel removed by purchasers is attributed in the Northern Circle to the fact that a large number of plantations were sold in the previous year, in the Central Circle to a fall in the removals from unreserved lands, in the Southern Circle to the facts that a smaller number of coupes than usual were sold in the two *Vellore* divisions and in *Salem North* and *South* and that *padugais* were transferred to the Public Works Department. In the Western Circle, the decrease occurred chiefly in *South Canara* and *North Coimbatore* division but has not been explained.

35. The value of bamboos extracted by departmental agency decreased chiefly in the Northern Circle and is reported to be due to the extension of the contract system of working. The value of bamboos removed by purchasers increased in all the circles.

36. The value of minor produce extracted by departmental agency decreased in the Northern, Central and Western Circles and showed practically no change in the Southern Circle. The value of minor produce removed by purchasers increased in the Northern and Central Circles. There were, however, some small decreases in the other circles. In the Northern Circle, the increase was due to the favourable season and in the Central Circle to large collection of *tangedu* kists in *Bellary*, *Anantapur* and *East Cuddapah* and to the extension of the kancha system and a rise in the demand for mica in *Nellore*.

	Right holders.	Free grantees.
	RS.	RS.
Northern Circle ...	34,439	3,938
Central ,, ...	138	5,910
Southern ,, ...	1,115	8,608
		* 1,995
Western ,, ...	6,180	1,789
Total ...	41,872	22,240

* At reduced rates.

37. The estimated value of forest produce removed by right holders was Rs. 41,872, against Rs. 53,291, and of produce granted free and at reduced rate, Rs. 22,240, against Rs. 29,073.

38. The following statement exhibits the financial results of the year as compared with those of the previous year and with the average of the preceding five years:—

Years.	Revenue.	Expenditure.		Total.	Surplus.
		A. Conservancy and works.	B. Establishments.		
	RS.	RS.	RS.	RS.	RS.
1915-16	39,38,475	10,97,505	15,10,444	26,07,949	13,30,526
1914-15	40,17,852	13,89,296	15,47,355	29,36,651	10,81,201
Average for the five years ending 1914-15.	40,39,040	16,37,305	14,59,643	30,96,948	9,42,092

The revenue fell by Rs. ·79 lakh, and the expenditure under A. Conservancy and Works and B. Establishments also fell by Rs. 2·91 and ·37 lakhs respectively. The net result was a surplus of Rs. 13·31 lakhs, which is Rs. 2·49 lakhs more than that of the previous year and is the highest yet recorded. This large surplus is partly explained by the postponement of all avoidable expenditure on account of the war. The Central Circle stands first with a surplus of Rs. 6·04 lakhs and the Southern Circle next with Rs. 4·61 lakhs, against Rs. 4·39 lakhs and Rs. 6·22 lakhs,

the figures for the previous year. The Northern Circle shows a surplus of Rs. ·73 lakh against Rs. ·39 lakh in the previous year, while the Western Circle returns an unprecedented surplus of Rs. 1·93 lakhs against a deficit of Rs. ·19 lakh in the previous year. One noticeable feature of the year under this head was that the surplus was distributed over all the circles.

39. The noticeable variation was the increase of Rs. ·91 lakh which occurred in the Central Circle and was due mainly to higher grazing receipts in *Guntūr* and *Nellore* and to heavier receipts under minor forest produce in several districts of the circle. There was also an increase of about Rs. ·60 lakh in the Western Circle, due mainly to the better prices realized by the sale of elephants, the leasing of additional lands, increased rents from the Anamalai estates and larger sales of timber in four forest divisions. This was counterbalanced by a large decrease of Rs. 2·04 lakhs in the Southern Circle, accounted for by the sale in the previous year of valuable casuarina plantations in *South Arcot* and *Tanjore*, the transfer of the control of forest padugais to the Public Works Department, and, generally, to the concentration of work on hill rather than plain forest. The increase in the Northern Circle was small and calls for no remarks.

40. The expenditure under "A. Conservancy and Works" decreased by Rs. 2·92 lakhs, the abnormal expenditure of last year being due mainly to the acquisition of the Mudumalai and Kumbarakolli forests in the *Nilgiris* (Western Circle) at a cost of nearly Rs. 1¾ lakhs. During the year expenditure was curtailed, mainly under the head of "Communications and buildings," on account of the war. In the Central and Southern Circles, the further reason assigned for the decrease is the abandonment of cultural operations, the absence of any large expenditure such as was incurred last year on account of compensation for acquisition of land in *Guntūr*, and the reduction in the number of watchers in the Southern Circle.

Expenditure under "B. Establishments" also decreased in all circles except the Western.

41. *Administration.*—The Hon'ble Mr. H. F. W. Gillman, I.C.S., was head of the forest administration throughout the year. He toured in the districts of *Nellore*, *North Arcot*, *the Nilgiris*, *South Arcot*, *Coimbatore*, *Mangalore South*, *Malabar*, *Ganjām* and *Chingleput*. His inspection in the *Nellore* district was in connection with the settlement of the Mutharachas and Madigas who had been evicted from the Udayagiridurgam hill reserves. In *South Arcot* and *Chingleput*, the Forest Commissioner visited many forests and examined the classification and suitability for panchayat management of some of them. Copies of the inspection notes recorded at the time have already been submitted to Government. The tour in *North Arcot* was in connection with the future administration of the Puliyur-Kambugudi enclosure in the Javadis; Government passed orders on the Board's proposals in G.O. No. 2687, Revenue, dated 3rd December 1915. On the *Nilgiris* Mr. Gillman inspected the demarcation of reserves in progress and the new district boundary between the Nilgiris and Coimbatore. The new township and the estates on the Anamalais were inspected in the *Coimbatore* district. In his tour in *South Canara*, the Forest Commissioner visited forests from which overmature timber was being extracted, was convinced that other forests in the district remained unexploited owing to want of establishment and soon after obtained the sanction of Government for the immediate bifurcation of the district.

42. Mr. P. M. Lushington was in charge of the Southern Circle throughout the year. Mr. A. W. Lushington held charge of the Northern Circle until the 21st September 1915, when he retired from service and was succeeded by Mr. F. L. C. Cowley-Brown. Mr. S. Cox held charge of the Central Circle until 17th December 1915 and Mr. H. B. Bryant for the rest of the year. The charge of the Western Circle was held by Mr. C. D. McCarthy up to 12th April 1916 and by Mr. H. A. Latham for the rest of the year. The Conservators inspected all the District Forest offices, except those of *Bellary*, *Anantapur*, *Madura* and *Tinnevelly*. The offices of the first-named two districts were inspected after the close of the year. The Conservators also recorded inspection notes of the forests visited by them in the districts of *West* and *East Cuddapah*, *Nellore*, *Chingleput*, *Chittoor*, *South Salem*, *Trichinopoly*, *South Arcot*, *North Vellore* (for the Ameredi plantation). The touring of the Conservators of

Forests, Northern, Central and Southern Circles, was adequate ; the touring of the Conservator, Western Circle, though short, has been satisfactorily explained. All District Forest offices, except those of *West Cuddapah*, *Trichinopoly*, *Madura*, *South Canara* and *South Malabar*, spent a sufficient number of days in touring : the short touring of the excepted officers has also been satisfactorily explained.

All range offices except two in each of the districts of *South Kurnool* and *South Coimbatore* and one in each of the districts of *Nellore*, *Tinnevelly* and *Central Coimbatore* were inspected by the District Forest Officers. The accounts of District Forest offices except those of *Bellary*, *South Malabar* and *North Coimbatore* were inspected by auditors from the Accountant-General's office and the results were reported to be generally satisfactory.

43. An important change in the administration was effected by G.O. No. 260, Revenue, dated 7th February 1916, which modified the relative position of the District Forest Officer and the Collector. The District Forest Officer was declared to be the head of the Forest Department in his own district and the Conservator was made responsible for, and given control over, all professional, departmental and financial matters in his circle and invested with independent authority regarding the appointment, transfer and punishment of subordinate forest officials. These orders gave rise to some misapprehension and as the result of a discussion of the subject which the Forest Commissioner held with the Conservators in June last, the Board requested Government to define more clearly the relation between the Collector and the District Forest Officer. The work of classifying the forests in accordance with the orders of Government passed on the reports of the Forest Committee has been completed in all districts, except a portion of *Kurnool East*, and *South Arcot*.

Mr. E. A. Davis, I.C.S., continued on special duty for the purpose of accelerating the introduction of panchayats for the management of forests in which grazing was of primary importance. His special duty terminated on 21st August 1916. In the course of his tours he visited all the districts in which there was a good prospect of introducing the panchayat system and selected areas suitable for panchayat in consultation with the Collectors and District Forest Officers. The Board has already recorded its appreciation of the good work done by Mr. Davis.

During the year 147 panchayats have been managing 134, 273 acres (nearly 210 sq. miles) of reserved forests and unreserved land declared reserved land for the purposes of panchayat management. In the previous year there were only 76 panchayats, managing about 56 sq. miles.

The reports received on the working of the panchayats show that on the whole they have worked well. In a few instances goats were allowed to browse in the forest and there was overgrazing, illicit felling and hacking for manure leaves. The Board has expressed its opinion that these defects may be largely ascribed to ignorance, and that there is a disposition to remedy defects where these have been pointed out. The sympathy and supervision of the Revenue Department and especially of Revenue Divisional Officers will be essential if the panchayat system is to be a success. The report of Mr. H. M. Hood, I.C.S., who was placed on special duty for the civilisation of the Chentsus on the Nallamalais in the Kurnool district is under the consideration of Government.

Proposals have been submitted for the reorganisation of the controlling staff of the Forest Department. Similar proposals will shortly be submitted for the subordinate staff. The appointment of a Special Forest Officer on a salary of Rs. 350—50—700 for the Golgonda agency and Hill Madgole in the *Vizagapatam* district was sanctioned by Government and Mr. N. E. Shrigley was appointed to the post. Government have also sanctioned a permanent post of Special Veterinary Inspector for the charge of elephants in the Forest Department on a salary of Rs. 125–17½–300.

An additional forest charge was sanctioned and formed in South Canara. Government have also sanctioned the division of *North Arcot* into three forest charges but the scheme has not yet been given effect to. The proposal to constitute a third forest division in *Cuddapah* has also been approved by Government. *Kurnool* and *Gōdāvari* will be dealt with next on the same lines.

44. An industrial exhibition was held in Madras during the Christmas week of December last under the auspices of the Madras War Fund Committee, of which His Excellency the Governor was the President. Mr. Bourne was in immediate charge of the Forest section and was responsible for the excellent arrangement of the exhibits most of which were drawn from the Gass Forest Museum at *Coimbatore*. The section was granted a diploma of excellence by the Exhibition Committee.

45. The present Forest Commissioner has not been in charge of the department long enough to justify his making any comments on the work of the Conservators.

Among District Forest Officers, Mr. Arbuthnot in *Nellore* is reported to have worked hard and well during the year. In *Madura* Mr. A. B. Jackson's vigour and energy is remarked upon by the Collector. M.R.Ry. K. R. Venkatarama Ayyar was promoted to the class of Extra Deputy Conservator for exceptionally good work in *South Vellore* and Mr. C. P. Wilson has done excellent work as Special Working Plan Officer.

The Forest Assistant M.R.Ry. Rao Sahib K. Gundu Rao Avargal received his title during the year for good work.

46. *The Forest College, Coimbatore.*—One important event of the year was the opening of the new college buildings by His Excellency Lord Pentland who had himself laid the foundation stone of the buildings in April 1913. His Excellency, for the second time during the year, honoured the college with his presence on the 29th June, when he gave away the certificates and prizes, including the Pentland Shield of which His Excellency was the donor; the shield is awarded to the best all-round athlete of the year, and is tenable for one year only. At the close of the year the third batch of students passed out of the college. They were 29 in all, of whom one, a Government student, won the honors certificate and carried away most of the prizes. Seventeen obtained the higher standard certificates and five the lower standard, and six failed to qualify for any certificate. The final examinations in all the subjects were conducted by examiners from outside the staff of the College. But for the rule, brought into force for the first time, that conduct marks are not to count towards the marks necessary for qualification for the several certificates, the Principal states two more students would have obtained honours certificate.

The high proportion of failures is attributed to the low standard of intelligence and the poor educational equipment of these students. Conservators have been requested to make a more judicious selection in future, and the Principal has been instructed to send down such as do not possess the capacity to follow and profit by the course as soon as the fact is apparent; on this point he should be in a position to decide in the early part of the course, after the results of the first periodical examinations are known, at the latest. The examiners have given some useful practical hints for the training of the students and the Principal has noted them.

The 1915–17 division started in August 1915 with 36 students, of whom four were sent down in December as unfit for training, and one was dismissed for misconduct. There thus remained 31 in residence at the close of the year. Two more were subsequently removed, and the second year course of 1915–17 started with 29 students.

47. *General rules under the Forest Act.*—The working of the timber and sandalwood transit rules was satisfactory. The revised timber transit rules for *South Malabar* division were sanctioned and introduced from 1st April 1916. The revised rules for the collection and disposal of driftwood were sanctioned and brought into force during the year in *Gōdāvari Upper*, *Lower*, and *Kistna*. The people generally availed themselves of the privileges allowed by the rules under section 26 of the Forest Act and there were no complaints of any importance except from *Kurnool West*, where a good deal of timber was smuggled from the unreserves in the Yerramalais.

Improvement of water-supply in Government grazing grounds (*G.O. No.* 1622, *Revenue*, *dated* 4*th June* 1914).—In the Northern Circle, wells and forest springs were epaired or deepened in *Kistna*, *Gōdāvari Lower* and *Kurnool East* and *South*. In *Kurnool West* on account of the war no works were undertaken and in the remaining

districts in the circle no measures were considered necessary during the year. In the Central Circle, new wells were dug in *Anantapur*, and the existing ones repaired or deepened in *Guntūr*, *West* and *East Cuddapah* and *Nellore*. In *Chingleput*, the ryots of a village were permitted to repair the tank in Acharapakkam reserve for the use of the village cattle. Nothing of the kind was done in other districts. In the Southern Circle, some progress was made with the repair of wells and tanks in the two *Vellores* and *North Salem*. It is reported that in *South Vellore*, the Director of Industries is conducting boring operations with a view to introducing "tube-wells" and that the introduction of these wells will go a great way towards improving the drinking-water supply and thus conduce to the reduction of fever on the Javadis. No measures in this direction were considered necessary in the Western Circle, except in two divisions of *Coimbatore* where, for want of funds, nothing was done, and in *South Coimbatore* where the grazing question still remained unsettled.

Opening of small coupes in the vicinity of villages for rural supply.—Paragraph 20 *of the orders of Government on the Forest Committee's Report.*—The Conservator, Northern Circle, reports that coupes in convenient localities were sold to contractors to meet the wants of the people living near the forests. In the Central Circle coupes were opened wherever there was a local demand; in the Southern Circle the sale of fuel at the edge of the forests was generally conducted by coupe contractors; in the Western Circle no such measures were necessary, as the demand for fuel was met from coupes sold to contractors and other sources.

Patrol system—Paragraph 22 (1) *of the Government Order on the Forest Committee's Report.*—In the Northern Circle, the system has been introduced in all divisions except *Upper Gōdāvari* and its working is reported to be satisfactory in *Kurnool East* and *South*. The system is being tried in all districts in the Central Circle, except *Anantapur*, *Chittoor* and *Chingleput*, and the work of the patrol parties is reported to be satisfactory in the districts of *Guntūr*, *West* and *East Cuddapah*. In the Southern Circle, the system was continued in *North Vellore*, *South Arcot* and *South Salem*, but owing to the smallness of the establishment it was scarcely a success. In the Western Circle the system was tentatively introduced in only one district, *Central Coimbatore*, and that was after the close of the year. It is hoped that, when the reorganisation of the subordinate staff, which will shortly be submitted to Government, is sanctioned and brought into force, the working of the system will be attended with better success.

Inducement of villagers to aid in the work of conserving adjoining forests—Paragraph 22 (2) *of the Government Order on the Forest Committee's Report.*—Government have passed orders on the Board's proposals for the introduction of the forest village system into the Madras Presidency which is designed to secure the co-operation of the people in the working of the Forest Department by giving them an interest in the result. It is hoped that an improvement may be anticipated from the operation of the scheme in the efficient protection of forests. The extension of the kancha system of grazing in *Nellore* is an instance in point.

48. *Forest Conference.*—Three conferences were held by the Forest Commissioner with the Conservators of Forests during the year—two at *Coimbatore* and one at *Madras* and various forest matters were discussed. In July 1915 His Excellency the Governor held an informal conference with the Revenue and Forest officers of the *Kurnool* district.

49. *Forest literature.*—Mr. R. D. Richmond, Deputy Conservator of Forests, had a Manual of Sylviculture under preparation and M.R.Ry. K. R. Venkataramana Ayyar, Extra Deputy Conservator of Forests, had in hand a Manual of Range Administration.

50. A memorandum of minor discrepancies found in the circle reports is appended.

(True Extract)

H. R. PATE,
Secretary.

To the Secretary to Government, Revenue Department, with Appendices.

APPENDIX.

Northern Circle.

(1) *Form No.* 71.—(*a*) The figures 391 and 148 in the column "Total cases" against A and B in the *Vizagapatam* district are mistakes for 148 and 391.

(*b*) The number of compounded cases is shown as 2,410 in the column of "Acquittals" in the statement, while it is shown as 2,467 in paragraph 13 of the Circle report.

(2) *Form No.* 72—(*a*) The figures 66,365 and 488,706 against Total Kurnool West are mistakes for 84,274 and 470,797.

(*b*) The figures 435,608 and 2,513,461 against Grand total are mistakes for 453,517 and 2,495,552.

(3) *Form No.* 74.—The figure in column 27 against Gōdāvari Upper is a mistake for 11,077.

(4) *Form No.* 76.—(i) The figures 315,914, 430,199, 131,336 and 395,333 against Grand total in page xii are mistakes in totalling for 302,292, 416,577, 144,958 and 408,955 respectively.

(ii) The figures 513,256 and 1,907,146 entered in column 32 "Total outturn" at page xiii against "Gōdāvari Lower" and "Total, unreserved lands" in the set of figures below "IV Unreserved lands" are mistakes for 514,056 and 1,908,946.

(5) (*a*) In the first statement at page 12 of the Circle report, the figures shown under the column Fuel in cubic feet against "Purchasers (including confiscation)" viz. 445,985 and 14,074,398 are mistakes for 4,459,851 and 4,074,398.

(*b*) In the same statement the value of bamboos removed by departmental agency during 1915–16 is shown as Rs. 4,523, while in Annual Form No. 77 at page xiv of the appendices it is shown as Rs. 4,533. The discrepancy has not been explained.

(6) In Form No. 80 at page xviii of the appendices, the cost of forest settlement is shown as Rs. 193, in the district of Ganjām (Rs. 57) and Gōdāvari Lower (Rs. 136), while in column 13 of Form No. 66 it is shown as nil. The discrepancy has not been explained.

Central Circle.

(1) *Form No.* 67.—In the districts noted in the margin, the totals of columns 3 and 4 of the return do not agree, as they should, with column 5 of the previous year's return at page xii of the appendices to the report for 1914–15. The discrepancies should have been explained by adding a footnote to the return.

	Columns 3 and 4.	Column 5 of the previous year's return.
	MILES.	MILES.
Bellary	1,731	1,746
Cuddapah West	1,370	1,378
Nellore	1,995	2,069
Chingleput	868	904
Chittoor	1,447	1,470

(2) *Form No.* 71.—Forest offences withdrawn as well as those compounded should be exhibited under the heading of "Acquittals" in columns 11 and 12 with reference to G.O. No. 1101, Revenue, dated 8th May 1915.

(3) *Form No.* 77.—The value of grazing and fodder grass removed by purchasers is shown as Rs. 3,21,843 in column 5 of the statement, while in Form No. 80 the revenue realised from the Circle from the same source is shown as Rs. 3,18,777. The discrepancy has not been explained.

(4) In Form No. 80 at page xv of the appendices the cost of forest settlement is shown as Rs. 152, Rs. 781 and Rs. —73 in the districts of Cuddapah West, Cuddapah East and Nellore, respectively, while in column 13 of Form No. 66 it is shown as nil in each of these districts. The discrepancy has not been explained.

Southern Circle.

(1) *Form No.* 65.—(*a*) The total of column 8 excluding 13 acres of reserved land referred to is 46,862 and not 46,865.

(*b*) The area of reserved forests, viz., 2,781,672 acres, works out to 4,346 square miles and not 4,347 square miles as shown in column 7 of the return.

(2) *Form No.* 67.—The cost of demarcation in the Tinnevelly district is entered as Rs. 514 in the last column of the statement. In Form No. 80 at page xviii of the appendices, it is shown as Rs. 486. The discrepancy has not been explained.

(3) *Form No.* 71.—Pages viii and ix of the appendix—

(i) 110 (*a*) entered in column 2 against *Trichinopoly* is a mistake for 116 (*a*).

(ii) The figure " 7 " entered in the column of " Acquittals " against *Tinnevelly* is evidently a misprint for 9.

(iii) Forest offences withdrawn as well as those compounded should be exhibited under the heading of " Acquittals " in columns 11 and 12 with reference to G.O. No. 1101, Revenue, dated 8th May 1915.

(4) In Form No. 80 at page xviii of the appendices, the cost of forest settlement in the several districts in the Southern Circle is shown as Rs. 8,960, while in column 14 of Form No. 66 it is shown as Rs. 2,909. The discrepancy has not been explained.

WESTERN CIRCLE.

(1) *Form No.* 71.—Forest offences withdrawn as well as those compounded should be exhibited under the heading of " Acquittals " in columns 11 and 12 with reference to G.O. No. 1101, Revenue, dated 8th May 1915.

(2) *Form No.* 77.—The value of grazing and fodder grass removed by purchasers is shown as Rs. 78,658 in column 5 of the statement. In Form No. 80 the revenue realized from the same source is shown as Rs. 79,322. The discrepancy has not been explained.

(3) In Form No. 80 at page xxiii of the appendices the cost of forest settlement in North Coimbatore is shown as Rs. 326, while in column 14 of Form No. 66 it is shown as nil. The discrepancy has not been explained.

Order—No. 246, Revenue, dated 26th January 1917.

Forest No. 11-A.	Recorded.

2. *Paragraph* 4 *of the Board's Resolution.*—The Government note that some progress has been made in forest settlement in the Upper Gōdāvari Forest division the slow progress in which was the subject of comment in paragraph 2 of the Government review for the previous year. It is observed, however, that much still remains to be done.

3. *Paragraphs* 11, 12, 13 *and* 18 *of the Board's Resolution.*—The Government are glad to see that there has been a decrease in the number of forest offences. There has, however, been an increase in incendiarism, which is not altogether explained by the dryness of the season. It is hoped that the further extension of the system of forest panchayats and the introduction of the forest village system may result in a reduction in the number of fires by giving villagers more personal interest in the preservation of neighbouring forests.

It is noted that the assistance of hill tribes is being enlisted on the side of the Forest Department, a fact which is creditable to all local officers concerned. Some trouble has been experienced with the Chentsus of East Kurnool division; but the relations between them and the department may be expected to improve as a result of the recent appointment of an officer to exercise special supervision over this tribe.

4. *Paragraph* 43 *of the Board's Resolution.*—The number of forest panchayats has increased from 76 to 147 and the area managed by them from 56 to 210 square miles. There is still a large area capable of being brought under private management if the Board's anticipation in its last report that one-tenth of the area of reserved forests will ultimately pass out of departmental control is ever to be fulfilled. But, as has recently been pointed out by Government, it is absolutely necessary to proceed with caution and to make sure that the earliest panchayats in each district are started under conditions which promise successful working.

5. *Paragraphs* 21 *to* 24 *of the Board's Resolution.*—The reduction in the number of animals licensed to graze in reserved forests is attributed in part to the spread of forest panchayats. The introduction of the forest village system should tend in the

same direction. A further reduction in the grazing incidence is necessary in many districts, as shown by the Conservator of Forests, Southern Circle, in paragraph 67 of his circle report. The Board of Revenue is requested to note on the subject in its next report in such detail as may be found necessary.

6. *Paragraph* 38 *of the Board's Resolution.*—The financial results of the year's working are not so satisfactory as they seem for the reason that the unusually large difference between receipts and expenditure is due to the restriction of capital expenditure in accordance with the policy of rigid economy imposed by the war.

7. *Paragraph* 43 *of the Board's Resolution.*—The Government have received proposals for the reorganization of the controlling staff of the Forest Department and have addressed the Government of India on the subject. The Board's proposals for the reorganization of the subordinate staff are awaited.

8. *Paragraph* 46 *of the Board's Resolution.*—The number of failures at the Forest College is regrettably large. The Board of Revenue has reported repeatedly in this matter, and their suggestions have received the approval of the Government.

(True Extract)

A. R. KNAPP,
Acting Secretary to Government.

To the Board of Revenue, Land Revenue (Forests).
,, Accountant-General.
,, Government of India, Department of Revenue and Agriculture (with C.L.).
,, Inspector-General of Forests (with C.L.).
Editors' Table.